EPA Reviewer: EPA Kashdan_Flannery Significant? No Comment # **3909**
Document: **Binder X ICDs** Category: Industrial Safety
Location: IAG-63, Stage II, ICD between the EEF and all other Systems
Page 15. Section 3.4.2.2
Comment:

95. According to WMF-671/WMF-673, Figure S-12 (Binder 12C), there is no apparent plan to secure the carbon steel plates so that they are immobile. These plates could shift relative to each other and produce gaps, and drum handler movement would be difficult or impossible across these gaps. It is suggested that the project include a plan to affix these plates to the underlying surface, or each other, so that there is no movement between these plates and subsequent gaps created. It is also unclear whether these plates will sit on, or be directly in contact with, bare earth. If so, these plates may corrode. Have alternate materials for this mobile drum handler surface been considered, such as concrete, wood, or a hard, durable plastic mat? Alternatively, the steel plates could be set on a surface that will not expose them to moisture.

*Response by Kirt Jamison. The carbon steel plates used for the operating surface of the mobile drum handler are affixed to the underlying surface by the vertical leg of angle which projects vertically into the existing soil, thus holding it in place. (See sheet S-12 EEF Drum Handler Floor Plate Plan & Sections). The carbon steel plates sit directly on polyethylene flooring which covers the soil. Polyethylene flooring was selected over several other materials (e.g., coated fabrics, polyurea spray elastomer, hard rubber) based on its ability to handle foot and forklift traffic, and cost. This design selection is documented in EDF-ER-159. We recommend modifying the text in IAG-63 to identify Binder XII-C - Environmental Enclosure Facility (EEF) Drawings, Sheet S-12 EEF Drum Handler Floor Plate Plan & Sections as the appropriate source for information on floor plates. General corrosion is not a concern since plates sit directly on stabilizing polyethylene flooring. Incidental corrosion near the stabilizing angle would be minimal, and thus, not a significant design issue.*

EPA Reviewer: EPA Kashdan_Flannery Significant? No Comment # **3910**
Document: **Binder X ICDs** Category: Industrial Safety
Location: IAG-63, Stage II, ICD between the EEF and all other Systems
Page 15. Section 3.4.2.2
Comment:

96. One of the drawings referenced in IAG-634 (WMF 671 Sheet MH-103) could not be located; the other drawing (WMF-671 Sheet MH-112) was located, but did not clearly show any features that would prevent shifting or movement between plates. Drawings should show the proposed design for these plates more clearly.

*Response by Kirt Jamison. The referenced sheets, MH-103 and MH-112, where submitted as part of a 90% design submittal on April 20, 2000. Neither drawing provides sufficient information regarding the floor plates. We recommend modifying the text in IAG-63 to identify Binder XII-C - Environmental Enclosure Facility (EEF) Drawings, Sheet S-12 EEF Drum Handler Floor Plate Plan & Sections as the appropriate source for this information. Binder XII was submitted as part of the June 15, 2000 RD/RA Work Package. This drawing shows the vertical leg of angle, which is the principal design feature for restricting shifting or movement between plates.*

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| EPA | Reviewer: EPA Kashdan_Flannery | Significant? No | Comment # | **3908** |
| Document: | **Binder X ICDs** | Category: Industrial Safety | | |
| Location: | IAG-63, Stage II, ICD between the EEF and all other Systems<br>Page 15, Section 3.4.2.2 | | | |
| Comment: | | | | |

94. This section describes EEF operating surfaces, including carbon steel plates that will be the operating surface for the mobile drum handler. One item specifically mentioned about these plates is that they shall be sufficiently level to prevent either a full or empty mobile drum handler from rolling or continuing motion on its own. Because these plates may settle and/or shift as work progresses on them, a level surface may change to an angled surface over time. A suggested option for this issue would be to build the mobile drum handler with a brake that must be unlocked before the drum handler could be moved, which would prevent unwanted motion.

*Response by Kirt Jamison. The carbon steel plates used for the operating surface of the mobile drum handler are stabilized to prevent horizontal and vertical shifting due to drum handler operation or other use (See sheet S-12 EEF Drum Handler Floor Plate Plan & Sections; see also response to Unique Comment 3909). The suggested option of adding a brake to the mobile drum handler has already been included as part of the procurement specification for the electric forklift for the EEF. "The forklift shall be equipped with service brakes and an independent emergency brake." (See section 3.4.8, SPC-246) We recommend adding text to IAG-63 to identify that the forklift/drum handler has brakes and recommend that operating procedures reflect their use.*

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| EPA | Reviewer: EPA Kashdan_Flannery | Significant? No | Comment # | **3911** |
| Document: | **Binder X ICDs** | Category: Other (clarification/wording) | | |
| Location: | IAG-63, Stage II, ICD between the EEF and all other Systems<br>Page 16, Section 3.4.3.3 | | | |
| Comment: | | | | |

97. This section discusses the negative pressure differential between the EEF and the Material Handling Cell (MHC) glovebox. The text states that "The negative pressure differential shall be at least 0.6 inches of water equivalent, as well as a minimum of 10 air changes per hour (ach), under normal operating conditions." This is ambiguous; please clarify whether it is the EEF or the MHC glovebox that will have the minimum of 10 ach.

*Response by Kirt Jamison. The "...minimum of 10 air changes per hour (ach), under normal operating conditions." applies to the Material Handling Cell (MHC). We recommend modifying IAG-63 text to more clearly state that the MHC glovebox will have a minimum of 10 air changes per hour.*

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| EPA | Reviewer: EPA Kashdan_Flannery | Significant? No | Comment # | 3912 |
| Document: | **Binder X ICDs** | Category: Other (clarification/wording) | | |
| Location: | IAG-63, Stage II, ICD between the EEF and all other Systems<br>Page 16. Section 3.4.4.2 | | | |
| Comment: | | | | |

98. This section discusses lighting. The text states that the MHC glovebox lighting will be provided on the outside of the gloveboxes. Please clarify whether these lights will shine on the gloveboxes from above, rather than from the sides; light from the sides could cause glare and hinder the view of the glovebox interior. Placement of lighting is not clear from either the text or the referenced figure (WMF-671, OU 7-10 SIA S-II, sheet E-17).

*Response by Kirt Jamison. Lighting in the MHC glovebox will be provided by overhead lights. Six overhead lights are called out in section 3.4.4.2 and are shown in drawing E-17 RAE/MHC Light Plan. We recommend clarifying the text in the IAG to more clearly identify MHC lighting as being overhead lighting and recommend referencing drawing E-17 (in place of E-16), which more clearly shows the location of this lighting.*

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| EPA | Reviewer: EPA Kashdan_Flannery | Significant? No | Comment # | 3913 |
| Document: | **Binder X ICDs** | Category: Technical | | |
| Location: | IAG-64, Stage II, ICD between the ERS and all other Systems<br>Page 14. Section 3.6.2.1 | | | |
| Comment: | | | | |

99. The text in this section states that the maximum weight of overpack containers is 2,000 pounds (for the waste plus container). Since the maximum carrying capacity of the Mobile Drum Handler (IAG-63, page 14, section 3.4.2.1; also per Binder 16-B, MLA Drum Load-out Design EDF, page 18) is only 1,500 pounds, how will overpack containers be moved? Alternatively, how will these overpack containers be removed from the EEF, if not via the MHC using the Mobile Drum Handler? Please clarify.

*Response by Kirt Jamison. The electric forklift for the Environmental Enclosure Facility will be utilized in a number of different configurations. One of those configurations includes the use of the Waldon Drum Handler as an accessory. As such, the forklift will be moving drums from the material loadout area to the fissile monitoring station and from the monitoring station to various staging locations within the EEF. Its load capabilities in this configuration are documented as you have noted in your comment. The forklift will also be utilized to move items into and out of the RAE airlock, including overpacks. In this configuration, the forklift will be capable of moving loads of greater than 2000 lbs. The procurement specification for the forklift (SPC-246) requires a 5000 lbs. load capability. This forklift will also be used to convey overpack containers to other parts of the EEF or to load the container for removal from the EEF. In addition to the procurement specification (SPC-246), the Facilities SDD (Binder XI-A) calls out the specifications for this forklift on p. 109. If overpack containers coming out of the RAE airlock are lighter than 1500 lbs. and use of the Mobile Drum Handler would be a more effective tool for moving the container then the handler may be used. We recommend adding a note to the IAG, which clarifies the use of the EEF forklift for overpack containers and points the reader to the procurement specification and the Facilities SDD if more information is desired.*

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| EPA | Reviewer: EPA Kashdan_Flannery | Significant? No | Comment # | **3914** |
| Document: | **Binder X ICDs** | Category: Industrial Safety | | |
| Location: | IAG-66, Stage II, ICD between the SS and all other Systems | | | |
| Comment: | Page 17, Section 3.10.2.2 | | | |

100. The text states that the Stage II transport vehicle shall not, when fully loaded, exceed the load-bearing capacity of the road to the Storage System. A bridge to be crossed on this road has a load-bearing capacity of 50 tons. The load-bearing capacity of the roadway itself is not stated. The text should state the load-bearing capacity of the road itself. Also, is the sum of the weight of the truck when empty, plus the weight of the materials carried, sufficient information to ensure that these weight restrictions will not be exceeded? Or should a truck scale be included in this design? Please explain.

*Response by Doug Morrell. We recommend that the text be modified to include the load-bearing capacity of the roadway. All drums will be weighed following packaging, and administrative controls will be used to verify that the weight of the truck and the drums in transport does not exceed load bearing capacity. We recommend that a truck scale is not required.*

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| EPA | Reviewer: EPA Kashdan_Flannery | Significant? No | Comment # | **3915** |
| Document: | **Binder X ICDs** | Category: Project Objectives | | |
| Location: | IAG-67, Stage II, ICD between the DAMS and all other Systems | | | |
| Comment: | General | | | |

101. Although this IAG describes several types of information to be collected at various points in the retrieval ; rocess, it does not describe whether information collected at one part of the process can be related to other information collected in a different part, but for the same unit of soil or waste. Specifically, will the data be organized so that analyses for material in a given drum can be correlated to a specific xyz point in the pit that it was collected from, and also what the corresponding digface data might be? This information may be quite useful, and the ability to make this correlation should be shown in this IAG.

*Response by James Case. We recommend incorporating the clarification proposed by the commentor. Although the SDD for the DAMS subsytem already addresses this topic in detail, additional clarification should be present in the IAG.*

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| EPA | Reviewer: EPA Kashdan_Flannery | Significant? No | Comment # | **3916** |
| Document: | **Binder X ICDs** | Category: Project Objectives | | |
| Location: | IAG-67, Stage II, ICD between the DAMS and all other Systems | | | |
| Comment: | General | | | |

102. A check of Binder 11D, Appendix D, shows that xyz data will be collected and correlated to each drum of soil and waste. However, the IAG should reiterate this information.

*Response by James Case. We recommend incorporating the clarification proposed by the commentor. Although the SDD for the DAMs subsytem already addresses this topic in detail, additional clarification should be present in the IAG.*

EPA Reviewer: EPA Wayne Pierre Significant? Yes Comment # **4027**

Document: **Binder XI-A SDD-20 Facilities** Category: Environmental

Location: SDD-20, INEEL/EXT-2000-00264, Stage II, Facilities - SDD

Comment: Page 109. Section 9.4

255. Minimum specifications should be provided concerning the forks.

*Response by Kirt Jamison. SPC-246, Electric Forklift for the Environmental Enclosure Facility, provides the specifications for the EEF forklift. Attachment A to SPC-246 lists the specification requirements. We recommend adding a reference to SPC-246 in the Facilities SDD and adding the Appendix A specifications as part of the key specifications requirements on page 109 of the Facilities SDD.*

EPA Reviewer: EPA Wayne Pierre Significant? Yes Comment # **4026**

Document: **Binder XI-A SDD-20 Facilities** Category: Environmental

Location: SDD-20, INEEL/EXT-2000-00264, Stage II, Facilities - SDD

Comment: Page 82. Section 7.2.1

254. It appears that hose reels are provided to deploy water into the RAE. However, the operational overview only discusses CO2. How water will be used in the RAE needs clarification given the potential criticality concerns.

*Response by Kirt Jamison. The first paragraph of section 7.2.3, Operational Overview, describes the Dry Pipe System, which distributes the water to the facility. Section 7.4.1.4.4, Principles of Operation, also describes the Water Automatic Dry Pipe Sprinkler System. We recommend clarifying the wording in these sections to be more specific regarding this as a water system. In addition, how water will be used in the RAE is being revisited as part of the Pit Water Moderation engineering evaluation. This topic, including the bounding accident scenario, will be discussed with the Agencies (by Todd Taylor and Rod Peatross) and an appropriate path forward defined. Once these discussions have occurred additional/modified text will likely be recommended for the Facilities SDD.*

EPA Reviewer: Jim McHugh Significant? Yes Comment # **3952**

Document: **Binder XI-B SDD-21 ERS** Category: Technical

Location: SDD-21, INEEL/EXT-2000-00259, Stage II, ERS - SDD

Comment: Page 17. Section 3.1.2.4.2

36. The strategy of sizing items at the digface needs to be discussed in more detail. The sizing of waste forms at the digface must be minimized to avoid cross contamination and release of contaminants to the environs. Why would one want to cut up intact, lined, standard 55-gallon drums? Does the project intend to perform such an operation at the digface? At one time, the use of overpack containers was discussed. What are the current plans for overpacks?

*Response by Daryl Lopez. We recommend incorporating the proposed change into the solution. Each intact drum from the digface will actually be placed in an ITM and transferred to the MHC for disposition. Reference to intact drum cutting would be removed from Section 3.1.2.4.2. Sizing at the digface will only be done if an item cannot fit into an ITM or through the MHC door. The MLA can handle 83-gal overpack drums and scan them, but the final assay station may not be able to handle them, depending on the assay station subcontractor.*

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| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # 3149 |
| Document: | **Binder XI-B SDD-21 ERS** | Category: Unspecified | |
| Location: | SDD-21, INEEL/EXT-2000-00259, Stage II, ERS - SDD<br>Page 54 of 117. Section 4.1.1.4.2. Item F | | |
| Comment: | | | |

50. The nibbler is indicated to require a minimum 0.87-inch diameter starting hole. It is not apparent which of the described tools would actually have this capability. If none of the described tools have this capability, IDEQ recommends that a drill and appropriate drill bit be added to the "toolbox".

*Response by Comment Processing CPT. We recommend adding a drill (or rotodrill) and bits to the ERS tool set to assist in sizing operations. [This is a consolidated response to comments 3149 (Binder XI-B) and 4028 (Binder XI-B).]*

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| EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # 4028 |
| Document: | **Binder XI-B SDD-21 ERS** | Category: Environmental | |
| Location: | SDD-21, INEEL/EXT-2000-00259, Stage II, ERS - SDD<br>Page 54. Section 4.1.1.4.2 | | |
| Comment: | | | |

256. It may be worthwhile to include a drill (or rotodrill) to assist in sizing operations. [See also UCN # 3149.]

*Response by Comment Processing CPT. We recommend adding a drill (or rotodrill) and bits to the ERS tool set to assist in sizing operations. [This is a consolidated response to comments 3149 (Binder XI-B) and 4028 (Binder XI-B).]*

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| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # 3953 |
| Document: | **Binder XI-C SDDs** | Category: Technical | |
| Location: | SDD-22, INEEL/EXT-2000-00260, Stage II, MHC - SDD<br>Page 35. Section 4.1.1.1.1.5 | | |
| Comment: | | | |

37. This section states that electrical power connections are provided for sizing and characterization equipment. Provision should also be made to provide electrical connections to hand-held detectors for characterization flexibility within the MHC glovebox. These would be signal/high-voltage feed-thru for various detector types (a standard feed-through will handle most common detectors).

*Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: We recommend reviewing the design (including DAMS) for its ability to accommodate portable instruments, and revising the RD/RAWP package as needed to accommodate them. We also recommend addressing contingent operations for use portable instruments in the Phase II O&M Plan. If it is determined later that portable instruments are distinctive to the retrieval process we recommend further evaluation of the design and incorporation of any needed changes. [This is a consolidated response to comments 3953 (Binder XI-C), 4033 (Binder XI-E) and 4034 (Binder XI-E).]*

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| EPA | Reviewer: Jim McHugh | Significant? No | Comment # | 3954 |
| Document: | **Binder XI-C SDDs** | Category: Editorial | | |
| Location: | SDD-22, INEEL/EXT-2000-00260, Stage II, MHC - SDD<br>Page 96, Appendices | | | |
| Comment: | | | | |

38. No references are provided to location of these appendices.

*Response by James Case for Carol Reid. We recommend addition of further explanation of the absence of the Appendices. The Appendices are included in the SDDs as a placeholder per the format dictated by MCP-3572.*

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| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # | 3150 |
| Document: | **Binder XI-C SDDs** | Category: Unspecified | | |
| Location: | SDD-22, SDD-23 and SDD-26<br>General | | | |
| Comment: | | | | |

51. Appendices are identified but not actually included in the respective documents. Please clarify.

*Response by James Case for Carol Reid. We recommend addition of further explanation of the absence of the Appendices. The Appendices are included in the SDDs as a placeholder per the format dictated by MCP-3572.*

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| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | 3956 |
| Document: | **Binder XI-C SDDs** | Category: Technical | | |
| Location: | SDD-23, INEEL/EXT-2000-00261, Stage II, SS - SDD<br>Page 10, Section 3.1.2 | | | |
| Comment: | | | | |

40. The proposed mobile assay unit will not be able to directly evaluate all the radionuclides mentioned in this section. The measurement uncertainty and MDC are not consistent with the reliable segregation of drums at 10 nCi/gram. Is the MDC specified for each radionuclide, or is it specified for total TRU? What is the required confidence level associate with the MDC? The DRDs that are referenced are not consistent with TFRs and SRDs. A design requirement document (or changes to DRDs) need to meet established base requirements. As the design proceeds, there should be no "retrofitting" of the design requirements to meet what is convenient.

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

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| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? Yes | Comment # | **3151** |
| Document: | **Binder XI-C SDDs** | Category: Unspecified | | |
| Location: | SDD-23, INEEL/EXT-2000-00261, Stage II, SS - SDD<br>Page 11 of 30. Section 3.1.2 | | | |
| Comment: | | | | |

52. Please explain how a total measurement uncertainty of 15 nCi/g and a minimal detection concentration of 40 nCi/g will allow for detection of material in Pit 9 containing TRU constituents >10 nCi/g.

*Response by Doug Morrell. The reviewer is referred to EDF-ER-129 in Binder XIX (Storage-Part II, Assay and Transportation). The EDF analyzes the overall requirement that the average transuranic concentration must not exceed 10 nCi/g at the 95% confidence level. Four analytical families of possible distributions are used in the analysis. Results of the analysis indicate that to maintain an average TRU concentration less than 10 nCi/g, the assay equipment must have a total measurement uncertainty of 15 nCi/g and a minimal detection concentration of 40 nCi/g.*

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| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | **3957** |
| Document: | **Binder XI-C SDDs** | Category: Technical | | |
| Location: | SDD-23, INEEL/EXT-2000-00261, Stage II, SS - SDD<br>Page 22. Section 4.1.1.5 | | | |
| Comment: | | | | |

41. The NDA assay methodology is satisfactory for characterizing RFP waste materials. However, based on expected performance, alternatives should be employed for soil characterization. Soil represents a large volume of material that will be less than or equal to 10 nCi/gram. Applying a 100 nCi /gram tool to characterize soil is unrealistic considering project objectives. Realistic alternatives exist and these must be embraced in the design. [See also UCN # 3955.]

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

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| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | 3955 |
| Document: | **Binder XI-C SDDs** | Category: Technical | | |
| Location: | SDD-23, INEEL/EXT-2000-00261, Stage II, SS - SDD | | | |
| Comment: | Page 8, Section 3.1.1.2 | | | |

39. The statement "a TRU constituent level of 10 nCi/gram for the population of drums to be returned to the pit has been identified" is not correct. Returning drums to the pit is based on the characterization of single drum contents; the decision to return is based on these single drum results, not a population average. The NDA assay methodology to accomplish this requirement has not been demonstrated, and may remain a major technical obstacle. NDA assay for waste is acceptable using best available technology; however, utilizing NDA assay for soil is not acceptable (without a NDA assay demonstrated capability). This major volume of material should be characterized by an alternative method (suggestions presented in other comments). [See also UCN # 3957.]

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

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| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | 3958 |

42. It is stated in the text that the DFM must be able to distinguish between 60 keV gamma rays emitted from Am 241, and other high-energy gamma rays, as the it is deployed by the ROCS. This capability is desirable; however, it is not clearly stated in other DFM design documents. The purpose, operation, and data output of the DFM needs to be clearly defined and consistent throughout all design documents.

*Response by James Case. We recommend that documentation be clarified as proposed.*

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| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | **3959** |
| Document: | **Binder XI-C SDDs** | Category: Technical | | |
| Location: | SDD-24, INEEL/EXT-2000-00262, Stage II, CIS - SDD<br>Page 30, Section 3.1.2 | | | |
| Comment: | | | | |

43. As stated in Section 3.1.1, the MHC fissile monitoring subsystem is designed to ensure, within a 95 percent confidence level, that drums filled with excavated waste from pit 9 do not contain more than 200 grams of weapons-grade plutonium before the drums are removed from the MLA. If this is the case, why is an independent drum monitoring station required?

*Response by James Case. We recommend clarifying the document according to the following explanation: Section 3.1.1 of the CIS SDD does in fact state that the MHC fissile monitoring subsystem will ensure within a 95% confidence level that filled drums do not contain more than 200 grams of weapons-grade plutonium; however, the fissile monitoring subsystem also includes the Independent Drum Monitoring Station. The fill monitors at the MLA are designed to provide an estimate only. The Independent Drum Monitoring Station will provide a 95% confidence measurement.*

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| EPA | Reviewer: Jim McHugh | Significant? No | Comment # | **3964** |
| Document: | **Binder XI-C SDDs** | Category: Editorial | | |
| Location: | SDD-26, INEEL/EXT-2000-00267, Stage II, SHC - SDD<br>Page 102, Appendices | | | |
| Comment: | | | | |

48. No references are provided to locate the Appendices.

*Response by James Case for Carol Reid. We recommend addition of further explanation of the absence of the Appendices. The Appendices are included in the SDDs as a placeholder per the format dictated by MCP-3572.*

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| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | **3961** |
| Document: | **Binder XI-C SDDs** | Category: Technical | | |
| Location: | SDD-26, INEEL/EXT-2000-00267, Stage II, SHC - SDD<br>Page 28, Section 4.1.1.1.1 | | | |
| Comment: | | | | |

45. The cartridge filters are rated as high-efficiency filters. The integrity of these filters must be maintained through out the operation to avoid contamination of the vacuum pump and adding airborne contamination to the RAE. What methods are employed to ensure these objectives are met? [See also UCN # 3975]

*Response by Bob Carpenedo. We recommend further evaluation of a control method to shut down the vacuum based on filter status. The design, as submitted, provides for detection of blocked filters. The proposed action on detection of filter failure would be to shut the vacuum system off.*

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**OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Binder/Document**



EPA Reviewer: Jim McHugh Significant? Yes Comment # **3962**

Document: **Binder XI-C SDDs** Category: Technical

Location: SDD-26, INEEL/EXT-2000-00267, Stage II, SHC - SDD
Page 61, Section 4.1.4.1

Comment:

46. Since the requirements of the SVS are to handle 2 in. diameter clumps/rocks, the auger sampler must deal with this "granularity" in the container. Will the auger sampler push the clump aside, or grinder it up? If it pushes it aside, it is not handling all materials in a representative way. This supports the need for a grinder/homogenizer for soil entering a drum.

*Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]*

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EPA Reviewer: Jim McHugh Significant? Yes Comment # **3963**

Document: **Binder XI-C SDDs** Category: Technical

Location: SDD-26, INEEL/EXT-2000-00267, Stage II, SHC - SDD
Page 89, Section 4.4.2.9

Comment:

47. It is stated in the text that humidity controls are not installed to regulate humidity within glovebox systems. Without humidity control, a problem can develop on very dry days (e.g. wintertime conditions) with finely divided particles and static electricity charges. Such conditions can disburse contamination within the enclosure and increase cleanup operations.

*Response by Comment Processing CPT. As discussed in the 10/3/00 Agency Face-to-Face Meeting, we recommend performing a survey of other facilities to see if they implement humidity controls in gloveboxes. The results of the survey would be documented in an EDF. Follow-on action would depend on the outcome of the survey.*

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EPA Reviewer: Jim McHugh Significant? Yes Comment # **3960**

Document: **Binder XI-C SDDs** Category: Technical

Location: SDD-26, INEEL/EXT-2000-00267, Stage II, SHC - SDD
Page 9, Section 3.1.2.2

Comment:

44. The soil handling center (SHC) provides sampling consistent with the current FSP. Soil sampling is the method most likely to satisfy the soil characterization objective at 10 nCi/gram (i.e. not NDA assay). Therefore, it is necessary to modify the FSP and ensure that the loading and sampling strategy for soil drums provides for reliable characterization of the drum contents. A grinder/homogenizer and distributor in series with the hopper to drum path, and additional core sampling of a drum (collecting 1.5 to 2.0 kg of soil), will provide adequate assurance of representative sampling for this large volume of material. Gamma spectroscopy analysis of three core samples from each drum is a fast and reliable NDA method. This will ensure that requirement for characterizing and segregating drums to less than or equal to 10 nCi/gram can be achieved. [See also UCN # 3962.]

*Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]*

| | | | | |
|---|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # | 3153 |
| Document: | **Binder XI-D DAMS** | Category: Unspecified | | |
| Location: | SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD<br>Page 19 of 109 | | | |
| Comment: | | | | |

54. Please explain why the estimated infrastructure cost is defined in terms of a percentage of the RWMC's infrastructure cost. In addition, to the knowledge of this reviewer, there are no Stage II systems to be fueled by natural gas. Therefore, please explain why the cost of natural ("national") gas is being estimated for the Stage II project.

*Response by Jim Rose. We recommend changing the word "National" to "Natural" in the definition of "Estimated Natural Gas". The Stage II infrastructure cost can only be estimated because all the specific components of the total cost are not individually metered/measured, e.g., electric power. Using a percentage of the total RWMC costs for the appropriate components seems reasonable. Also, by inclusion of natural gas as a possible component of infrastructure cost does not necessarily have a cost associated with it. It is merely a place-holder in the DAMS design against a remote possibility.*

| | | | | |
|---|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # | 3154 |
| Document: | **Binder XI-D DAMS** | Category: Unspecified | | |
| Location: | SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD<br>Page 20 of 109 | | | |
| Comment: | | | | |

55. Besides a fissile monitoring device attached to the digface monitor, separate fissile monitoring stations are identified as part of the Stage II design.

*Response by Jim Rose. We recommend the definition of "Fissile Monitor" be broadened to include the MHC Fill Monitors and the EEF Drum Fissile Monitor. The exclusion of these monitors was inadvertent and should be corrected.*

| | | | | |
|---|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # | 3155 |
| Document: | **Binder XI-D DAMS** | Category: Unspecified | | |
| Location: | SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD<br>Page 25 of 109 | | | |
| Comment: | | | | |

56. Please note that VOCs were not envisioned to be measured at the digface contrary to the definition provided for "Pit Characteristics Data". The nearest VOC measurement station would be at the digface ventilation hood.

*Response by Jim Rose. The definition of "Pit Characteristics Data" as written can be misinterpreted. We recommend the definition be reworded to say "..... by the digface monitor and other sources; such as .....".*

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IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # 3156

Document: **Binder XI-D DAMS** | Category: Unspecified

Location: SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD

Page 36 thru 38 of 109

Comment:

57. Several of the definitions mention that the source for the "approved" list of contaminated waste constituents, contaminated waste constituent types, digface object types, hazardous waste constituents, radioactive waste constituent, secondary waste object type, and valid identifiers/names for both the Stage II Storage Facility and Waste Container Storage Facility "must be identified and agreed to by all appropriate parties". Please clarify what is meant by such statements. Also, explain the difference between the "Stage II Storage Facility" and the "Waste Container Storage Facility" given that only a single CERCLA storage facility is planned.

*Response by Jim Rose. For clarity we recommend the quotation marks around the word "approved" in "NOTE: ....." be removed in each case in Section 2.3.2.2.3. The subject note was added to some of the definitions in this section specifically to accentuate the need for fixed, agreed to data sets at the outset of the software design. Since portions of the DAMS are built around these data sets, late changes to any of them can have a very large impact on product quality, its cost and schedule to implement. Also, we do not see any reference to "Waste Container Storage Facility" in this section. However, since there is indeed only one "Stage II Storage Facility" planned we recommend doing a search and correcting any discrepancies found.*

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EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # 4029

Document: **Binder XI-D DAMS** | Category: Environmental

Location: SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD

Page 38, Section 2.3.2.2.3

Comment:

257. There appears to be a discrepancy concerning the definition of "waste container." Initial retrieval will be of waste containers and samples may be collected. These wastes will be repackaged into new containers and again samples may be collected. The definition of waste container used only addresses the repackaged wastes.

*Response by James Case. We recommend incorporating clarification regarding the definition of "waste containers." The SDD also includes the terms "soil containers" and "special case containers" which may require similar clarification to aid in the definition of "waste containers."*

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EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # 4030

Document: **Binder XI-D DAMS** | Category: Environmental

Location: SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD

Page 45, Section 2.3.2.2.3

Comment:

258. A data element for Waste Compatibility Category may also prove useful for tracking purposes, as samples may be categorized by visual clues in the MHC alone.

*Response by James Case. We recommend drafting a Change Request to add the new requirement to the baseline. Presently, no requirements have been identified regarding tracking for waste compatibility.*

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| | | | | |
|---|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # | 3152 |
| Document: | **Binder XI-D DAMS** | Category: Unspecified | | |
| Location: | SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD | | | |
| Comment: | Page iii of xvi, Paragraph 3 | | | |

53. Please provide the missing reference.

*Response by James Case. We recommend incorporating the missing reference into the document as requested. The reference should be to Section 3.2.6 on page 60 of 109.*

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # | 4031 |
| Document: | **Binder XI-E SDD-25 Supplement** | Category: Environmental | | |
| Location: | SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement | | | |
| Comment: | Figure 52 | | | |

259. It is unclear what circumstances would lead to partially filled ITMs being returned to the Pit in the process described?

*Response by Jim Rose. We recommend there be no change to this document in response to this comment. The potential does exist to return a partially filled ITM to the RAE. For instance, if an object could not be sized sufficiently to fit into a 55 gal drum it might go back for special handling. Or if a lab pack or unknown liquid is encountered such that repackaging must wait for the results of lab sample analysis, it might be temporarily returned to the RAE.*

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # | 4032 |
| Document: | **Binder XI-E SDD-25 Supplement** | Category: Environmental | | |
| Location: | SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement | | | |
| Comment: | Figure 52 | | | |

260. It is unclear why drums which cannot be assayed would be stored in Assay Lan Storage?

*Response by Jim Rose. It is clear the question asked by the referenced decision block can be misinterpreted. Therefore, we recommend changing the words from "Can Assay?" to "Can Assay Now?".*

EPA Reviewer: EPA Wayne Pierre Significant? Yes Comment # **4033**

Document: **Binder XI-E SDD-25 Supplement** Category: Environmental

Location: SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement

Comment: Figure 52

261. The process flows appears to indicate that samples would only be analyzed outside of the RAE or MHC. Real-time screening measurements (e.g., pH, PID, hand-held radiation meter, etc.) should complement laboratory analyses.

*Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: We recommend reviewing the design (including DAMS) for its ability to accommodate portable instruments, and revising the RD/RAWP package as needed to accommodate them. We also recommend addressing contingent operations for use portable instruments in the Phase II O&M Plan. If it is determined later that portable instruments are distinctive to the retrieval process we recommend further evaluation of the design and incorporation of any needed changes. [This is a consolidated response to comments 3953 (Binder XI-C), 4033 (Binder XI-E) and 4034 (Binder XI-E).]*

EPA Reviewer: EPA Wayne Pierre Significant? Yes Comment # **4034**

Document: **Binder XI-E SDD-25 Supplement** Category: Environmental

Location: SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement

Comment: Figure 53

262. The process flows appears to indicate that samples would not directly factor in the excavation plan. Real-time screening measurements in the RAE (e.g., pH, PID, hand-held radiation meter, etc.) should complement the DFM.

*Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: We recommend reviewing the design (including DAMS) for its ability to accommodate portable instruments, and revising the RD/RAWP package as needed to accommodate them. We also recommend addressing contingent operations for use portable instruments in the Phase II O&M Plan. If it is determined later that portable instruments are distinctive to the retrieval process we recommend further evaluation of the design and incorporation of any needed changes. [This is a consolidated response to comments 3953 (Binder XI-C), 4033 (Binder XI-E) and 4034 (Binder XI-E).]*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3845**

Document: **Binder XIII EEF Footings** Category: Technical

Location: EEF FOOTINGS

Comment: S-1

160. The overall building dimensions are incorrect.

*Response by Dave Stephens. We recommend that the dimensions be corrected.*

**OU 7-10 Staged Interim Action Project, Stage II, Title II**
**Response Report - sorted by Binder/Document**



EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3846**
Document: **Binder XIII EEF Footings** Category: Technical
Location: EEF FOOTINGS
Comment: S-1

161. Note 3 should state that additional reinforcement for handling and erection shall be added - if required-by the Subcontractor.

*Response by Dave Stephens. We recommend modifying the drawing and/or specification to address the potential for and responsibility for additional reinforcement for handling special handling inserts, rigging, or etc.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3847**
Document: **Binder XIII EEF Footings** Category: Technical
Location: EEF FOOTINGS
Comment: S-1

162. The typical reinforcement specified in Note 3 does not include any steel for the vertical faces, and is probably not appropriate for pieces such as K and T. Typical reinforcement details for different block geometry's are recommended.

*Response by Dave Stephens. It is recommended that reinforcement details be added for the various block geometries.*

EPA Reviewer: EPA Wayne Pierre Significant? No Comment # **4036**
Document: **Binder XIV-A RAE** Category: Unspecified
Location: EDF-ER-111, INEEL/EXT-99-01251 Stage II Shielding Evaluation for the Retrieval Building
Comment: EDF-ER-111

264. Is it correct to assume that no material will be staged at grade in the RAE?

*Response by Phil Rice. We recommend pursuing no action with respect to the question. It is not correct to assume that no material will be staged at grade in the RAE. Some material may be staged at grade on occasion, but only in accordance with proper radiological control practices (such as additional shielding, distance, or time constraints).*

EPA Reviewer: EPA Wayne Pierre Significant? Yes Comment # **4035**
Document: **Binder XIV-A RAE** Category: Unspecified
Location: EDF-ER-111, INEEL/EXT-99-01251 Stage II Shielding Evaluation for the Retrieval Building
Comment: EDF-ER-111

263. The activity listed for Pu-239 is not consistent with other estimates (e.g., 35Ci in the July 2000, Stage I Treatability Report).

*Response by Mark Borland. We recommend rerunning the shielding analysis using the source term data associated with the published inventory in the Stage I/II area (letter RWT-02-99) and compare results, and if greater, evaluate the impact on the design.*

| | | | |
|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3848 |
| Document: | **Binder XIV-A RAE** | Category: Other (clarification/wording) | |
| Location: | RAE<br>General. S-01522 | | |
| Comment: | | | |

163. The scope of work under this Section is not clear. Are enclosures a project requirement, or for contractor convenience? If they are a project requirement, what is the intent? Is the RAE to be erected within an enclosure? Is heating and lighting required? How does the work get staged (crane access, etc.)? When does the enclosure get removed?

*Response by Scott Jensen. They are for both. The extent of the required enclosures and the need for heating and lighting are dependent on the Subcontractors schedule for the work. Coordination with the EEF enclosure also impacts the scope of this effort. The scope may be clarified to some extent when the bid packages are finalized.*

| | | | |
|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3849 |
| Document: | **Binder XIV-A RAE** | Category: Technical | |
| Location: | RAE<br>P-3 S-05100 | | |
| Comment: | | | |

164. Under "Shop Painting", delete "Joists and Accessories" and include references to Painting Sections 09800 and 09900 for work limits. Also, refer to Painting Sections 09800 and 09900 for coating thicknesses and surface preparation.

*Response by Scott Jensen. We recommend deleting the referenced paragraphs and retaining the shop painting paragraphs on the following page.*

| | | | |
|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3850 |
| Document: | **Binder XIV-A RAE** | Category: Other (clarification/wording) | |
| Location: | RAE<br>P-5 S-05100 | | |
| Comment: | | | |

165. Under "Surveys," should steel fabrication be deferred until the adjustments have been made? This would prevent the need to rework fabricated steel. The text implies that "Corrections" are the subcontractor's responsibility and "Compensating Adjustments" are to be reimbursed, perhaps by change order. Is this the intent? Please clarify.

*Response by Scott Jensen. We recommend adding wording to require field verification of the pile support locations prior to fabrication of members that may be impacted by deviations from dimensions as shown on the drawings.*

| | | | |
|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3851 |
| Document: | **Binder XIV-A RAE** | Category: Technical | |
| Location: | RAE<br>P-5 S-05100 | | |
| Comment: | | | |

166. Under "Touch-up Painting," include Section 09800.

*Response by Scott Jensen. We recommend adding 09800 to the sentence.*

# OU 7-10 Staged Interim Action Project, Stage II, Title II
## Response Report - sorted by Binder/Document

Printed: 10/30/00

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3784**

Document: **Binder XIV-B RAE** Category: Technical

Location: Appendix A - RAE Loading Calculation

Comment: P-B7 General

109. Do the shapes shown on the detailed component list reflect the final designed and detailed structure?

*Response by Scott Jensen. It is assumed that reviewer means sheets A-2 through A-13. There may be some minor differences but these sheets were used as a check on weight and center of gravity output for the 3-D model and there is reasonable agreement between the two.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3779**

Document: **Binder XIV-B RAE** Category: Technical

Location: Appendix B - Roof/Ceiling Design

Comment: P-B5/ General Comment

105. Number beams that are being analyzed. Place member shapes designations on the calculation sheet (e.g., TS2x2x3/16).

*Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The referenced calculation sheet is for all the ceiling stiffener (minor) beams. Therefore, a specific beam number is not appropriate. The member shape is indicated by the input property dimensions and the calculation title that indicates a rectangular tube shape.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3783**

Document: **Binder XIV-B RAE** Category: Technical

Location: Appendix B - Roof/Ceiling Design

Comment: Page B31

108. Provide section properties for the "Top Corner" section.

*Response by Scott Jensen. The section properties are included in Appendix J. The Top Corner is two C12x20.7 It consists of the horizontal C12 in the wall panel and the vertical C12 in the ceiling panel.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3780**

Document: **Binder XIV-B RAE** Category: Technical

Location: Appendix C - RAE Wall Design

Comment: Gen for computer model/ Elevat. sheets

106. How are the connections made between the panels? If these members are supposed to be composite - a clear complete detail should be referenced. No detail is shown or reference made for connection of the panels on the Elevation sheets. Please provide connection details and the locations of each detail. [See Unique Comment # 3781 to XIV-C]

*Response by Scott Jensen. The connection details are shown on drawing sheet S-41. We recommend adding a note to the wall detail elevation sheets to clarify the location of the details. [See also UCN 3781]*

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**OU 7-10 Staged Interim Action Project, Stage II, Title II**
**Response Report - sorted by Binder/Document**



EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3794**
Document: **Binder XIV-B RAE** Category: Technical
Location: Appendix C - RAE Wall Design
P-C-186 Sheet S-10/S-13
Comment:

116. West Wall Panel 1and 4, Framing Exterior Elevation, two diagonal members HSS 2x2x3/16 (between 3'-0" and 8'-0" from the elevation base) are shown on the drawings; however, they are not shown on the computer model sketch and are not designed with the rest of the structure. The beam offset in the same general location is not shown in the computer model. This should be checked to make sure that the HSS 2x2x3/16 shown to support these members is still adequate. [See Unique Comment # 3795 to XIV-C]

*Response by Scott Jensen. We recommend deleting the diagonal members from S-10 and S-13 since the structure is adequate without them. [See also UCN 3795]*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3785**
Document: **Binder XIV-B RAE** Category: Technical
Location: Appendix C - RAE Wall Design
P-C-6 Sheet S-6
Comment:

110. There is no callout for members 531, 533 (Panel 3, S-7) and members 536, 534 (Panel 2, S-6). Please correct. [See Unique Comment # 3786 to XIV-C]

*Response by Scott Jensen. We recommend that the member callout (HSS 4x4x3/16) be added to drawings S-6 and S-7. [See also UCN 3786]*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3790**
Document: **Binder XIV-B RAE** Category: Technical
Location: Appendix C - RAE Wall Design
Page C-114. Sheet S-15
Comment:

113. Member 210 shows HSS 3X3X3/16, drawings S-15 show HSS 2X2X3/16. Please clarify. [See Unique Comment # 3791 to XIV-C]

*Response by Scott Jensen. We recommend that drawing S-15 be corrected. The member is a HSS 3x3x3/16. [See also 3791]*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3787**
Document: **Binder XIV-B RAE** Category: Technical
Location: Appendix C - RAE Wall Design
Page C-67. Sheet S-2
Comment:

111. Where is the design for mezzanine support channel? (Members 462, 464, 460, 457, 452, 449, 447, 444, 439, 436, 434, 431). [See Unique Comment # 3788 to XIV-C]

*Response by Scott Jensen. The mezzanine plan and details are on drawing sheet S-32. We recommend improving the cross referencing between S-32 and other drawings in the package. [See also UCN 3788]*

**OU 7-10 Staged Interim Action Project, Stage II, Title II**
**Response Report - sorted by Binder/Document**

Printed: 10/30/00

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | 3798 |
| Document: | **Binder XIV-B RAE** | Category: Technical | | |
| Location: | Appendix C - RAE Wall Design & Appendix G - Miscellaneous Calculations | | | |
| Comment: | East and West wall Calculations | | | |

119. After reviewing the east and west wall calculations and model input, the reviewer could not determine if the loading from the crane system has been incorporated in to the wall design. If this was not incorporated - it should be. There are nodes in the model apparently for this purpose. Please show that the loads were applied to the structure via a diagram from the computer model and show that the loads were applied to the structure through the "loads applied" section of the input for the computer model.

*Response by Scott Jensen. Crane loads were included in the model. We recommend adding appropriate diagrams to Appendix J.*

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | 3796 |
| Document: | **Binder XIV-B RAE** | Category: Technical | | |
| Location: | Appendix E - RAE South Upper Platform (Mezzanine) | | | |
| Comment: | Sheet E-5 and E-8 | | | |

117. Show dimensions on this plan for verification of design parameters.

*Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The dimensions should be verified by looking at Appendix J and not by dimensions placed on these sheets.*

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | 3806 |
| Document: | **Binder XIV-B RAE** | Category: Technical | | |
| Location: | Appendix F - MHC Support Frame Design/ Drawings | | | |
| Comment: | Sheet F-2 through F-6/S-31 | | | |

127. The computer model shows cross members (members 35, 36 and 37) between the W8x10s along the top of the structure. The drawings do not depict the same. How will lateral support of the frame and lateral load transfer to the frame below be achieved? [See Unique Comment # 3807 to XIV-C]

*Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3807, 3812, and 3813]*

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | 3810 |
| Document: | **Binder XIV-B RAE** | Category: Technical | | |
| Location: | Appendix F - MHC Support Frame Design/ Drawings | | | |
| Comment: | Sheet F-4 and F-7/ S-31 | | | |

129. Provide connection calculations. Are gusset plates required to connect cross members to the frames? Provide information on the drawing in order to facilitate detailing (x, y, z, Forces and x, y, z Moments if the connections are not to be designed). [See Unique Comment # 3811 to XIV-C]

*Response by Scott Jensen. We recommend improving the connection details and providing calculations as necessary to support the details. [See also UCN 3811]*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3812**

Document: **Binder XIV-B RAE** Category: Technical

Location: Appendix F - MHC Support Frame Design/ Drawings
Sheet F-4 and F-7/ S-31

Comment:

130. Provide adequate lateral support for the W8x10 at the top of the MHC' Support. [See Unique Comment # 3813 to XIV-C]

*Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3806, 3807, and 3813].*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3808**

Document: **Binder XIV-B RAE** Category: Technical

Location: Appendix F - MHC Support Frame Design/ Drawings
Sheet F-4 and F-7/S-31

Comment:

128. Member 38 in the computer model does not agree with the isometric view on Sheet S-31. The model shows a TS4x4x1/4 and the drawings show HSS 2x2x3/16. There is a discrepancy here. Please clarify. [See Unique Comment # 3809 to XIV-C]

*Response by Scott Jensen. We recommend correcting the isometric view. [See also UCN 3809]*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3797**

Document: **Binder XIV-B RAE** Category: Technical

Location: Appendix G - Miscellaneous Calculations
General

Comment:

118. Provide sketch to show location and intent of design for each grouping of calculations.

*Response by Scott Jensen. Many of the calculations are general in nature and sketches for location would not be useful. We recommend clarifying the grouping of the calculations.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3799**

Document: **Binder XIV-B RAE** Category: Technical

Location: Appendix G - Miscellaneous Calculations
Sheet G-2, G-3 and G-4

Comment:

120. Crane runway girders should be designed as continuous members. The authors assumption of the concentrated load doesn't move is not correct - it is stated in the description that the beam analyzed is the Main Crane Runway Beam.

*Response by Scott Jensen. We recommend incorporating the proposed change. These sheets were used for preliminary sizing of the girder and as a check for the 3-D model. The referenced assumption was included by mistake and was not really used as a design assumption.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3803**
Document: **Binder XIV-B RAE** Category: Technical
Location: Appendix G - Miscellaneous Calculations
Sheet G-23 through G-31
Comment:

124. Does the AISC ASD Steel Framed Connection Check/Design spreadsheet check the Web Tearout or Block Shear capacity of the coped members?

*Response by Scott Jensen. We recommend verifying that the spreadsheet checks this (or that it has been checked by other means).*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3801**
Document: **Binder XIV-B RAE** Category: Technical
Location: Appendix G - Miscellaneous Calculations
Sheet G-30
Comment:

122. Where is this member detailed on the Main Crane Girder Runway? There is no reference to this member size on sheet S-18 of the drawing set. Please clarify the size of the beam that the author intends to put on the drawings.

*Response by Scott Jensen. We recommend changing the sheet to show a W8x24 member.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3805**
Document: **Binder XIV-B RAE** Category: Technical
Location: Appendix G - Miscellaneous Calculations
Sheet G-37
Comment:

126. The design criteria states that AISC ASD will be used to design the structure. LRFD was not mentioned.

*Response by Scott Jensen. We recommend redoing the calculation per ASD.*

EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3852**
Document: **Binder XIV-C RAE** Category: Technical
Location: RAE
Sheet A-4
Comment:

167. X-references to platform structural drawings are incorrect.

*Response by Scott Jensen. This comment applies to Binder XIV-C RAE. We recommend correcting S-41 and S-42 cross references.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3792**
Document: **Binder XIV-C RAE** Category: Technical
Location: RAE Drawings
Comment: General

114. Show 'back' of channel - dotted - to make sure the orientation of the channel is correct to the fabricator.

*Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The orientation is shown on section and details. A dotted line at the scale at which most of the drawings are made would not show in the plots as anything other than a thickened line.*

EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3854**
Document: **Binder XIV-C RAE** Category: Technical
Location: RAE Drawings
Comment: Sheet S-1

169. The cumulative dimensions of the guard rail sections are not compatible with the dimensions of the typical corner railing detail. Suggest changing indicated dimensions to "Field Measure."

*Response by Scott Jensen. We recommend correcting the dimensions and adding a note to field verify the shoring dimensions prior to fabrication of the railings.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3793**
Document: **Binder XIV-C RAE** Category: Technical
Location: RAE Drawings
Comment: Sheet S-16 East Wall Panel 3, Framing Ext Elev

115. How will the HSS2X2X3/16 and HSS4X4X3/16 be connected? Is there an interference problem?

*Response by Scott Jensen. Typical connection details are shown on S-43.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3859**
Document: **Binder XIV-C RAE** Category: Other (clarification/wording)
Location: RAE Drawings
Comment: Sheet S-18

174. The design of the RAE implies that it will be relocated as a complete unit. Is it also required that the panelized assemblies be removable in sections? If so, a revised crane runway bracket should be considered.

*Response by Scott Jensen. Removing the panels without cutting of the liner plate or features such as the runway bracket is not required.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3800**
Document: **Binder XIV-C RAE** Category: Technical
Location: RAE Drawings
Sheet S-18 Interior Elevation P
Comment:

121. A WT10.5X22 was used in the computer model; however, this section was not detailed on the drawings. It was built up from individual plates. Please clarify.

*Response by Scott Jensen. A WT10.5X22 was used to simplify the modeling process and as a design basis. The stainless plate built-up section has equal or better section properties and is therefore okay.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3802**
Document: **Binder XIV-C RAE** Category: Technical
Location: RAE Drawings
Sheet S-18 Interior Elevation P
Comment:

123. Where is the calculation for the connections of the 1) W8x24 crane runway girder to the support beam (WT in the calcs or built up plates on the drawings) and 2) built up plates to the column HSS 4X4X3/8? This calculation is critical for the support of the crane.

*Response by Scott Jensen. We recommend adding calculations to the Miscellaneous Calculations in Appendix G as referenced in comment 3801.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3789**
Document: **Binder XIV-C RAE** Category: Technical
Location: RAE Drawings
Sheet S-2
Comment:

112. Does channel for mezzanine support connect to the cross braces?

*Response by Scott Jensen. No. We recommend clarifying the detail for connection of the channel and adding a detail, probably on S-40, with a reference to S-32.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3855**
Document: **Binder XIV-C RAE** Category: Other (clarification/wording)
Location: RAE Drawings
Sheet S-2
Comment:

170. The south and east elevations include more bays of vertical bracing at upper level(s) than at the base. Please explain.

*Response by Scott Jensen. Lower locations had areas of interference that did not allow bracing at to be placed there.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3782**
Document: **Binder XIV-C RAE** Category: Technical
Location: RAE Drawings
Sheet S-21
Comment:

107. Section J is cut in the wrong place. It shows the HSS 2X2X3/16, which does not show up in the view of the section cut. Move Section J to the correct location on the drawing so that it reflects what elements are located where the section is cut.

*Response by Scott Jensen. We recommend moving section J to a correct location.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3860**
Document: **Binder XIV-C RAE** Category: Other (clarification/wording)
Location: RAE Drawings
Sheet S-24
Comment:

175. Are washers and nuts required to compress the seal at Section T?

*Response by Scott Jensen. At least a nut is required. We recommend adding a callout for the nut and possibly a washer.*

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EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3861**
Document: **Binder XIV-C RAE** Category: Technical
Location: RAE Drawings
Sheet S-31
Comment:

176. In Section D, south beam callout W21 x 44 conflicts with framing plan Sheet S-3 (W16 x 36).

*Response by Scott Jensen. We recommend changing the callouts on S-3. The callout on S-3 is incorrect. The north beam on S-3 should be a W21x44 and the south beam on S-3 should be a W16x36. [See also UCN 3862].*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3862**
Document: **Binder XIV-C RAE** Category: Unspecified
Location: RAE Drawings
Sheet S-31
Comment:

177. In enlarged plan, north beam callout W21 x 44 conflicts with framing plan (W16 x 36).

*Response by Scott Jensen. We recommend changing the callouts on S-3. The callout on S-3 is incorrect. The north beam on S-3 should be a W21x44 and the south beam on S-3 should be a W16x36. [See also UCN 3861].*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3863**

Document: **Binder XIV-C RAE** Category: Other (clarification/wording)

Location: RAE Drawings
Sheet S-31

Comment:

178. Review Weld Symbols vs. Joint Geometry; e.g., in Detail 20, A 4 in TS frames into a 4-in. flange. An all-around fillet weld is not appropriate.

*Response by Scott Jensen. We recommend changing the weld symbol.*

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EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3864**

Document: **Binder XIV-C RAE** Category: Technical

Location: RAE Drawings
Sheet S-32

Comment:

179. See previous comment on Sheets S-6 through S-17 concerning vertical bracing connection geometry. [Also see comment # 3858]

*Response by Scott Jensen. We recommend evaluating a change. The joint geometry is not as important here since the floor plate will likely provide more strength and lateral stiffness than the diagonal members after the plate is in place.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3865**

Document: **Binder XIV-C RAE** Category: Other (clarification/wording)

Location: RAE Drawings
Sheet S-32

Comment:

180. Is the floor plate to have a diamond pattern for safety?

*Response by Scott Jensen. No. It will have paint with a grit added (See Binder XIV-A, RAE Spec 233, Section 09900).*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3804**

Document: **Binder XIV-C RAE** Category: Technical

Location: RAE Drawings
Sheet S-38 Section AM

Comment:

125. How thick is the connection plate? Is the plate on one side of the connection or two?

*Response by Scott Jensen. We recommend adding the thickness of the connection plate to the referenced detail.*

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| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | **3856** | |
| Document: | **Binder XIV-C RAE** | Category: Other (clarification/wording) | | | |
| Location: | RAE Drawings<br>Sheet S-4 | | | | |
| Comment: | | | | | |

171. Callout for 3/8-inch floor plate points to open floor area on south side of pit.. Move arrow line to plated floor area.

*Response by Scott Jensen. We recommend moving the callout arrow.*

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|---|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | **3857** | |
| Document: | **Binder XIV-C RAE** | Category: Other (clarification/wording) | | | |
| Location: | RAE Drawings<br>Sheet S-5 | | | | |
| Comment: | | | | | |

172. Is a predetermined amount of compression required to create a seal with the sponge rubber? Is field welding prohibited in the connections immediately above the seal (to prevent melting)? Whereas fit-up tolerances will be very difficult here, these requirements should be clarified.

*Response by Scott Jensen. The seal was designed to work with compression provided by the weight of the RAE. We recommend changing the detail to prevent melting of the seal.*

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|---|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | **3866** | |
| Document: | **Binder XIV-C RAE** | Category: Technical | | | |
| Location: | RAE Drawings<br>Sheets S-37 Through S-41 | | | | |
| Comment: | | | | | |

181. See previous comment (Sheet A-1) concerning connection design responsibility. If the connections shown on these sheets are considered to be fully detailed, the following comments apply: A. What is the connection bolt type - SC, N, or X? B. If these are bearing bolts (Type N or X), is tensioning required? C. The AISC Standard detail for the outstanding legs of a "Flexible", one-sided connection is a 2-sided weld with a top return. (AISC P.4-84). [Also see UCN# 385.3]

*Response by Scott Jensen. We recommend incorporating the proposed change. The bolt tensioning requirements should be clarified. They are currently included in the specification. However, a recent revision to the bolt installation standard referenced in the specification requires that additional information be provided on the drawings. We recommend modifying the weld symbol as necessary for the two options shown. (See response to UCN 3866)*

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| EPA | Reviewer: EPA G. Garbacik | Significant? Yes | Comment # | **3858** | |
| Document: | **Binder XIV-C RAE** | Category: Technical | | | |
| Location: | RAE Drawings<br>Sheets S-6 - S-17 | | | | |
| Comment: | | | | | |

173. The working points for the vertical bracing, and the resulting joint configurations, are shown inconsistently. Refer to Sheet S-43 for the typical joint configuration.

*Response by Scott Jensen. Agree that the views should look more like S-43 configuration. We recommend evaluating the drawings will be considered and changing them as necessary.*

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| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | **3781** |
| Document: | **Binder XIV-C RAE** | Category: Technical | | |
| Location: | RAE Drawings, Appendix C - Drawings | | | |
| Comment: | General for computer model/ Elevat. sheets | | | |

106. How are the connections made between the panels? If these members are supposed to be composite - a clear complete detail should be referenced. No detail is shown or reference made for connection of the panels on the Elevation sheets. Please provide connection details and the locations of each detail. [See Unique Comment # 3780 to XIV-B]

*Response by Scott Jensen. The connection details are shown on drawing sheet S-41. We recommend adding a note to the wall detail elevation sheets to clarify the location of the details. [See also UCN 3780]*

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| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | **3795** |
| Document: | **Binder XIV-C RAE** | Category: Technical | | |
| Location: | RAE Drawings, Appendix C - Drawings | | | |
| Comment: | P-C-186 Sheet S-10/S-13 | | | |

116. West Wall Panel 1and 4, Framing Exterior Elevation, two diagonal members HSS 2x2x3/16 (between 3'-0" and 8'-0" from the elevation base) are shown on the drawings; however, they are not shown on the computer model sketch and are not designed with the rest of the structure. The beam offset in the same general location is not shown in the computer model. This should be checked to make sure that the HSS 2x2x3/16 shown to support these members is still adequate. [See Unique Comment # 3794 to XIV-B]

*Response by Scott Jensen. We recommend deleting the diagonal members from S-10 and S-13 since the structure is adequate without them. [See also UCN 3794]*

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| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | **3786** |
| Document: | **Binder XIV-C RAE** | Category: Technical | | |
| Location: | RAE Drawings, Appendix C - Drawings | | | |
| Comment: | P-C-6 Sheet S-6 | | | |

110. There is no callout for members 531, 533 (Panel 3, S-7) and members 536, 534 (Panel 2, S-6). Please correct. [See Unique Comment # 3785 to XIV-B]

*Response by Scott Jensen. We recommend that the member callout (HSS 4x4x3/16) be added to drawings S-6 and S-7. [See also UCN 3785]*

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| EPA | Reviewer: EPA G. Garbacik | | Significant? No | Comment # | **3791** |
| Document: | **Binder XIV-C RAE** | | Category: Technical | | |
| Location: | RAE Drawings, Appendix C - Drawings<br>Page C-114, Sheet S-15 | | | | |
| Comment: | | | | | |

113. Member 210 shows HSS 3X3X3/16, drawings S-15 show HSS 2X2X3/16. Please clarify. [See Unique Comment # 3790 to XIV-B]

*Response by Scott Jensen. We recommend that drawing S-15 be corrected. The member is a HSS 3x3x3/16. [See also 3790]*

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| EPA | Reviewer: EPA G. Garbacik | | Significant? No | Comment # | **3788** |
| Document: | **Binder XIV-C RAE** | | Category: Technical | | |
| Location: | RAE Drawings, Appendix C - Drawings<br>Page C-67, Sheet S-2 | | | | |
| Comment: | | | | | |

111. Where is the design for mezzanine support channel? (Members 462, 464, 460, 457, 452, 449, 447, 444, 439, 436, 434, 431). [See Unique Comment # 3787 to XIV-B]

*Response by Scott Jensen. The mezzanine plan and details are on drawing sheet S-32. We recommend improving the cross referencing between S-32 and other drawings in the package. [See also UCN 3787]*

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| EPA | Reviewer: EPA G. Garbacik | | Significant? No | Comment # | **3807** |
| Document: | **Binder XIV-C RAE** | | Category: Technical | | |
| Location: | RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings<br>Sheet F-2 through F-6/S-31 | | | | |
| Comment: | | | | | |

127. The computer model shows cross members (members 35, 36 and 37) between the W8x10s along the top of the structure. The drawings do not depict the same. How will lateral support of the frame and lateral load transfer to the frame below be achieved? [See Unique Comment # 3806 to XIV-B]

*Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3806, 3812, and 3813]*

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| EPA | Reviewer: EPA G. Garbacik | | Significant? No | Comment # | **3811** |
| Document: | **Binder XIV-C RAE** | | Category: Technical | | |
| Location: | RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings<br>Sheet F-4 and F-7/ S-31 | | | | |
| Comment: | | | | | |

129. Provide connection calculations. Are gusset plates required to connect cross members to the frames? Provide information on the drawing in order to facilitate detailing (x, y, z, Forces and x, y, z Moments if the connections are not to be designed). [See Unique Comment # 3810 to XIV-B]

*Response by Scott Jensen. We recommend improving the connection details and providing calculations as necessary to support the details. [See also UCN 3810]*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3813**

Document: **Binder XIV-C RAE** Category: Technical

Location: RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings Sheet F-4 and F-7/ S-31

Comment:

130. Provide adequate lateral support for the W8x10 at the top of the MHC' Support. [See Unique Comment # 3812 to XIV-B]

*Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3806, 3807, and 3812.]*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3809**

Document: **Binder XIV-C RAE** Category: Technical

Location: RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings Sheet F-4 and F-7/S-31

Comment:

128. Member 38 in the computer model does not agree with the isometric view on Sheet S-31. The model shows a TS4x4x1/4 and the drawings show HSS 2x2x3/16. There is a discrepancy here. Please clarify. [See Unique Comment # 3808 to XIV-B]

*Response by Scott Jensen. We recommend correcting the isometric view. [See also UCN 3808]*

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EPA Reviewer: Jim McHugh Significant? Yes Comment # **3965**

Docui ent: **Binder XIX Storage Part II** Category: Technical

Location: EDF-ER-054, Stage II, Non-Destructive Assay System Capabilities EDF Page 3, Table

Comment:

49. The MDCs quoted by the vendors do not meet, or are very optimistic relative to, soil assay objectives. The project must be very careful in using these data to justify the assay methodology for soil characterization.

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

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|---|---|---|---|---|---|
| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | **3966** | |
| Document: | **Binder XIX Storage Part II** | Category: Technical | | | |
| Location: | EDF-ER-129, INEEL/EXT-2000-00044, Stage II, Avg Conc Vs. Measured Cutoff Conc for Assay Ops<br>~~Page 1, Summary~~ | | | | |

Comment:

50. This assessment for shallow land burial of waste is based on the assumed overall requirement that the average transuranic concentration of the waste/soil must not exceed 10 nCi/gram at the 95 percent confidence level. This assumption is not correct, and should not be applied to an ensemble of waste/soil packages, or applied to an in situ disposal area situation. The volume to be characterized is an individual package (55-gallon drum). The requirement applies to the individual drum, not the collection of drums or large waste volumes. This fact is defined in project requirements. The assay system is not intended to be a screening tool, but intended to provide reliable characterization data on each individual drum, such that the segregation objectives of less than or equal to 10 nCi/gram, 10 to 100 nCi/gram, and > 100 nCi/gram can be met. If these objectives cannot be met with the proposed assay system, an alternative methodology needs to be employed (especially for soil, which presents the gest volume of material).

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

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|---|---|---|---|---|---|
| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | **3968** |
| Document: | **Binder XIX Storage Part II** | Category: Technical | | |
| Location: | EDF-ER-129, INEEL/EXT-2000-00044, Stage II, Avg Conc Vs. Measured Cutoff Conc for Assay Ops<br>~~Page 10, Section 6.0~~ | | | |

Comment:

52. Accepted characterization methodologies do not require assumptions relative to the expected distribution of excavated soil. Screening a large number of soil drums with the proposed assay tool is a poor use of time and money, and provides no useful characterization data. One can easily characterize a soil drum to less than 1 nCi/gram TRU by modifying drum loading and sampling strategies. This methodology should be embraced for soil characterization and return-to-pit decisions. As stated in this summary section, the conclusions relate to the expected use of the assay system as a screening method, not a characterization method. Individual drum characterization requires the MDC be less than 10 nCi/gram TRU. The drum assay requirements for soil, or alternate methodology, must demonstrate a 3 nCi/gram TRU MDC at 95 percent confidence level to provide reliable quantitation results for drum segregation at 10 nCi/gram. The assay system is not intended to be a screening tool; it provides an important characterization function for TRU concentrations near 100 nCi/gram.

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

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|---|---|---|---|---|
| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | 3967 |
| Document: | **Binder XIX Storage Part II** | Category: Technical | | |
| Location: | EDF-ER-129, INEEL/EXT-2000-00044, Stage II, Avg Conc Vs. Measured Cutoff Conc for Assay Ops<br>~~Page 10, Section 6.0~~ | | | |

Comment:

51. Using a criterion that the average TRU meets a particular value for a large volume of waste/soil is not consistent with accepted practice. If one takes the concept of averaging literally, it means one can bury/return to the pit anything as long as the average is satisfied. Taking this a step further, one could simplify the overall Pit 9 operation by removing only waste containers and leaving all soil behind (or return soil without analysis). This soil volume could contain about 2 kg of Pu and still satisfy the less than 10 nCi/gram criterion. One only needs a retrieval process that recovers waste items; this should guarantee that > 90 percent of the Pu has been recovered. Soil characterization would not be necessary because the Pu is associated with waste materials and one could statistically show the average has been satisfied. This is an example of how far one can take the concept of averaging.

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), `965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

EPA Reviewer: Jim McHugh Significant? Yes Comment # **3969**

Document: **Binder XIX Storage Part II** Category: Technical

Location: SPC-245, Stage II -- Nondestructive Assay Service
Page 1, Section 1.0

Comment:

53. The mobile characterization services for nondestructive assay specify a 55 gallon drum container. Does this mean that drum over packs will not be used? There were discussions in the past that the assay system be capable of handling over packs. What is the justification for this change, and how much additional sizing and handling of drums will be required? Where will this sizing take place (at the digface or MHC)? The desire should be to minimize waste sizing at the digface.

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

EPA Reviewer: Jim McHugh Significant? No Comment # **3970**

Document: **Binder XIX Storage Part II** Category: Technical

Location: SPC-245, Stage II -- Nondestructive Assay Service
Page 2, Section 1.2.1

Comment:

54. The maximum weight of waste/soil containers is listed as 800 pounds. In other documents, a quantity of 700 pounds was used for containers. There appears to be a lack consistency.

*Response by Doug Morrell. The 800 pound specification flows from Design Requirements Document (DRD) Volume 7 (see Binder IV-B), section 3.7.4.12. The 800 pounds was specified in the DRD to provide a capacity margin.*

# OU 7-10 Staged Interim Action Project, Stage II, Title II
## Response Report - sorted by Binder/Document

Printed: 10/30/00

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|---|---|---|---|---|
| EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # | 4038 |
| Document: | **Binder XIX Storage Part II** | Category: Environmental | | |
| Location: | SPC-245, Stage II -- Nondestructive Assay Service<br>Page 2. Section 1.3 | | | |
| Comment: | | | | |

266. The unit should be capable of handling 85gal drum over packs, also.

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

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|---|---|---|---|---|
| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | 3971 |
| Document: | **Binder XIX Storage Part II** | Category: Technical | | |
| Location: | SPC-245, Stage II -- Nondestructive Assay Service<br>Page 2. Section 1.3 | | | |
| Comment: | | | | |

55. The system requirements as defined in this section are satisfactory for waste materials, but not satisfactory for soil. The specified measurement uncertainty and MDC are not consistent with segregating drums containing less than or equal to 10 nCi/gram TRU per drum. Also, the throughput rate should be defined at the required MDC.

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

EPA Reviewer: Jim McHugh Significant? Yes Comment # **3972**

Document: **Binder XIX Storage Part II** Category: Technical

Location: SPC-245, Stage II -- Nondestructive Assay Service
Page 9, Section 3.3.4

Comment:

56. The requirement that the assay report contain only those radionuclides that contribute 95 percent of a total activity is not a useful requirement for this project. For example, a situation could exist where the container contains one gram of "free" Am 241, 10 grams Pu 239 and 100 grams U 235. The total activity would be dominated by the Am 241, and that may be the only radionuclide listed in the assay report (using this specification requirement).

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

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EPA Reviewer: EPA Wayne Pierre Significant? No Comment # **4039**

Document: **Binder XIX Storage Part II** Category: Environmental

Location: SPC-247, Stage II -- Electric Forklift for the OU 7-10 Storage Facility, WMF-669
Page 3.2

Comment:

267. What are the functional requirements for the forks? Is it anticipated that the fork lift be able to accommodate non-paletized loads?

*Response by Doug Morrell. We recommend that Functional Requirements for the forks and drum handling equipment be incorporated into the specification and Design Requirements Document Volume 7.*

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IDEQ Reviewer: IDEQ Jean Underwood Significant? Yes Comment # **3157**

Document: **Binder XVI-A MHC** Category: Unspecified

Location: EDF-ER-109, INEEL/EXT-99-01249, Stage II, MHC Glovebox Operating Scenarios for Processing Waste
General

Comment:

58. Despite compatibility testing between loads, it may or may not be appropriate to completely fill a drum with separate integrated transfer module (ITM) loads since "separation of waste from waste" is viewed as RCRA treatment (i.e., it does not seem that compatibility testing should be the sole threshold criterion for combining waste into a single drum).

*Response by Brent Burton. We recommend not making a change to this EDF in response to the comment. The compatibility testing and any associated waste "separation" are required/unavoidable and must be performed regardless of LDR/RCRA treatment considerations in the MHC.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3818**
Document: **Binder XVI-A MHC** Category: Technical
Location: MHC Drawings
Comment: Dwg MH-100

133. Call out member size for beam at el. 56.00 on long face elevation view, top plan and bottom plan.

*Response by Scott Jensen. We recommend clarifying the callout of member sizes on the drawing.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3824**
Document: **Binder XVI-A MHC** Category: Technical
Location: MHC Drawings
Comment: General Comment-Crane Drawing MH-140

139. Provide connection details for connecting the bridge crane beams to the structure.

*Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The bridge crane beam connection details can not be designed until the crane is designed by its supplier. The supplier will provide the necessary information. [Same response for UCN 3823 and 3824]*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3814**
Document: **Binder XVI-A MHC** Category: Technical
Location: MHC Drawings/MHC/SHC Structural Calculations EDF
Comment: Dwg MH-101 (Sheet 1 of 4)/Page 23

131. Verify model and update drawings to represent information that reflects design cases. (The angle sizes at the corners of the structure shown in the computer model do not agree with the drawings.) [See UCN # 3815 to XVI-B]

*Response by Scott Jensen. We recommend changing the MHC drawings to indicate a L4x3x3/8 angle at the top of the structure shown on Dwg MH-101 sheet 1. [Same response for UCN 3814 and 3815]*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3816**
Document: **Binder XVI-A MHC** Category: Technical
Location: MHC Drawings/MHC/SHC Structural Calculations EDF(A
Comment: Dwg MH-101 (Sheet 1 of 4)/Gen Calc. Note

132. Have the welded joints been verified such that the weld indicated will be adequate? No calculation(s) were found in the EDF. [See Unique Comment # 3817 to XVI-B]

*Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3819**
Document: **Binder XVI-A MHC** Category: Technical
Location: MHC/SHC Structural Calculations EDF (Appendix B)
Comment: Crane Load Sheet

134. Were the lateral loads from the crane calculations applied to the frame? Were the correct loads (vertically) applied to the structure?

*Response by Scott Jensen. The answer to both questions is yes. See model input data in Appendix B of Binder XVI-B.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3815**
Document: **Binder XVI-B MHC** Category: Technical
Location: MHC Drawings/MHC/ SHC Structural Calculations EDF
Comment: Dwg MH-101 (Sheet 1 of 4)/Page 23

131. Verify model and update drawings to represent information that reflects design cases. (The angle sizes at the corners of the structure shown in the computer model do not agree with the drawings.) [See Unique Comment # 3814 to XVI-A]

*Response by Scott Jensen. We recommend changing the MHC drawings to indicate a L4x3x3/8 angle at the top of the structure shown on Dwg MH-101 sheet 1. [Same response for UCN 3814 and 3815]*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3817**
Document: **Binder XVI-B MHC** Category: Technical
Location: MHC Drawings/MHC/SHC Structural Calculations EDF(A
Comment: Dwg MH-101 (Sheet 1 of 4)/Gen Calc. Note

132. Have the welded joints been verified such that the weld indicated will be adequate? No calculation(s) were found in the EDF. [See Unique Comment # 3816 to XVI-A.]

*Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3820**
Document: **Binder XVI-B MHC** Category: Technical
Location: MHC/SHC Structural Calculations EDF (Appendix B)
Comment: General Comment

135. Provide calculations for the welds shown on the drawings. Are the welds shown adequate? Additional weld symbols are needed to show how the structure is to be connected.

*Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3823**
Document: **Binder XVI-B MHC** Category: Technical
Location: MHC/SHC Structural Calculations EDF (Appendix B)
Comment: General Comment-Steel Frame Calculations

138. Provide connection calculations, especially for the crane attachment to the structure.

*Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The bridge crane beam connection details can not be designed until the crane is designed by its supplier. The supplier will provide the necessary information. [Same response for UCN 3823 and 3824]*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3822**
Document: **Binder XVI-B MHC** Category: Technical
Location: MHC/SHC Structural Calculations EDF (Appendix B)
Comment: General Comment-Steel Frame Calculations

137. What is the difference between the two Steel Design Reports that are shown in this EDF? In the first report some of the members fail, in the second report everything is OK. Please clarify.

*Response by Scott Jensen. One report looks at governing load combinations that include earthquake loads. The other report looks at governing load combinations that do not include earthquake loads. As indicated in page 7 of the EDF the failure criteria is demand to capacity ratios less than 1.0 for load combinations that do not include earthquake loads and 1.33 for load combinations that do include earthquake loads. None of the members fail based on this failure criteria. For this reason we recommend not pursuing the action proposed in the comment.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3821**
Document: **Binder XVI-B MHC** Category: Technical
Location: MHC/SHC Structural Calculations EDF (Appendix B)
Comment: General Comment-Steel Plate Calculations

136. The steel plate calculations become inaccurate when the deflections are greater than one-half of the thickness of the plate. The designer should use a thicker plate and revise the calculations.

*Response by Scott Jensen. The inaccuracy of these results is not significant to the design. The stresses could be off by a factor of about 3 and still have a safe design. For this reason we recommend not changing the document.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3825**
Document: **Binder XVI-B MHC** Category: Technical
Location: MHC/SHC Structural Calculations EDF (Appendix C)
Comment: General Comment-Steel Frame Calculations

140. Designer should not detail overstressed members. Refer to page 32 of "Steel Design Report Checking SHC to ASD Code".

*Response by Scott Jensen. The members are not overstressed. See the SHC design summary on page 8 of the EDF. The demand to capacity ratio of members can be as high as 1.33 for load combinations that include earthquake loads.*

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3826**
Document: **Binder XVI-B MHC** Category: Technical
Location: MHC/SHC Structural Calculations EDF (Appendix C)
Comment: General Comment-Steel Frame Calculations

141. Provide connection calculations.

*Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]*

# OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Binder/Document

Printed: 10/30/00

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| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | 3973 |
| Document: | **Binder XVI-C MHC** | Category: Technical | | |
| Location: | EDF-ER-139, Stage II Material Handling Process Confinement-Design Option Trade Study | | | |
| Comment: | Page 1/Summary | | | |

57. This trade study selected "the small manual concept" as the preferred alternative. The current design concept does not appear consistent with this alternative. What trade study or other mechanism moved the design to its current configuration?

*Response by Mark Borland. We recommend not pursuing the action implied in the comment. The design is consistent with the trade study description for the small manual concept. The features described for the small manual concept in Section 4.4 of EDF-ER-139 include: 1) a single room for all work activities, 2) direct loading from the digface (no transfer tunnel), 3) one 55-gal and one 85-gal drum port, 4) overhead hoist, gloveports and manipulator for work efforts. The cost estimate for the small manual concept (Appendix C of EDF-ER-139) is based on a 15 inches long by 6 inches high by 5 inches wide cell with an overhead crane, z-mast manipulator, and 12 windows with gloveports. The features and size of the Title-II glovebox design as well as internal equipment are consistent with these descriptions.*

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|---|---|---|---|---|
| EPA | Reviewer: EPA Wayne Pierre | Significant? No | Comment # | 4037 |
| Document: | **Binder XVI-C MHC** | Category: Unspecified | | |
| Location: | EDF-ER-139, Stage II Material Handling Process Confinement-Design Option Trade Study | | | |
| Comment: | Page 11 | | | |

265. Depending upon the siting location of the Stage II facility, it is possible that a number of drummed wastes will require "special handling." As this number increases, (e.g., due to TRU content) the value of the decision process summarized in the EDF diminishes and the need to fully describe the "special handling" process increases in importance.

*Response by Comment Processing CPT. As agreed to in the 10/3/00 Agency Face-to-Face Meeting, we recommend providing detailed special handling processes and procedures as part of the Phase II O&M Plan, which is delivered prior to ORR. The processes and procedures should define ranges for which special handling would occur (e.g., grams of Pu, with breaks at 200, 380, 600, and 1000).*

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|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | 3853 |
| Document: | **Binder XVI-C RAE** | Category: Technical | | |
| Location: | RAE | | | |
| Comment: | Sheet A-1 | | | |

168. Note 4 implies that structural steel connection designs and details will be developed by the Subcontractor as a performance item. If this is the intent, the performance design requirements and submittal requirements should be clearly specified in Section 05100. Sheets S-37 through S-42 show "Typical Connection Details." Are these considered to be fully detailed, or guidelines? The connection design responsibilities require clarification. [See also UCN # 3866.]

*Response by Scott Jensen. We recommend deleting note 4 from A-1. (See the response to comment 3866.)*

# OU 7-10 Staged Interim Action Project, Stage II, Title II
## Response Report - sorted by Binder/Document

Printed: 10/30/00

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| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | 3974 |
| Document: | **Binder XVII SHC** | Category: Technical | | |
| Location: | Appendix A to Specification SPC-151, Stage II, SHC, Soil Vacuum System Requirements Page A31/5.2 | | | |
| Comment: | | | | |

58. To improve characterization and representative sampling, a soil grinder and distributor should be considered to reduce large chunks and distribute soil more uniformly in the drum. The system could be designed to minimize dust generation in the loading operation.

*Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]*

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|---|---|---|---|---|
| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | 3975 |
| Document: | **Binder XVII SHC** | Category: Technical | | |
| Location: | Appendix A to Specification SPC-151, Stage II, SHC, Soil Vacuum System Requirements Page A38/5.4.1.1.3 | | | |
| Comment: | | | | |

59. Failure of the filter could introduce contamination to the vacuum pump and the RAE. How will the system detect a filter failure? Will there be a second line of defense to mitigate such a failure? [See also UCN # 3961]

*Response by Bob Carpenedo. We recommend further evaluation of a control method to shut down the vacuum based on filter status. Currently there is no means of detecting filter failure (loss of pressure). The vacuum goes into a bypass mode on blockage of the filter (high delta pressure). The design would not include a second line of defense for such a failure. See also response to comment #3961.*

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|---|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # | 3158 |
| Document: | **Binder XVII SHC** | Category: Unspecified | | |
| Location: | SHC Interim Change Log, 30% - 90% Design Change No. 2f | | | |
| Comment: | | | | |

59. Please provide more explanation as to why the fissile monitor was deleted at the SHC. At one time there was concern that small amounts of waste would be vacuumed leaving the possibility that 1.6 kg of plutonium could be accumulated in a container (refer to Binder 10 MHC 30% design closeout final resolution).

*Response by Kevin Croft. We recommend not pursuing the action implied in the comment. In a meeting held January 20, 2000, regarding this subject, Joseph T. Taylor of BBWI Criticality Safety stated that the current approach of monitoring soil at the digface, using the Digface Monitor, and limiting vacuumed soil to volume limited batch amounts containing less than the established 200 gram per drum limits of Plutonium is acceptable. He emphasized that the batch (or campaign) approach of soil retrieval satisfactorily prevents excessive amounts of waste from being vacuumed. Note that the soil drums will be monitored for criticality at the Drum Monitoring Station inside the EEF and will undergo an assay prior to storage.*

**OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Binder/Document**

Printed: 10/30/00

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| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | **3976** |
| Document: | **Binder XVIII-A CIS** | Category: Technical | | |
| Location: | EDF-ER-144 Electrical Cooling vs. Liquid Nitrogen | | | |
| Comment: | Page 4 | | | |

60. The decision to utilize electrically cooled digface monitor detectors did not properly weigh the advantages and disadvantages. This decision should be re-evaluated with more careful attention to the liabilities that can impact project objectives. The concern for internal contamination of the liquid nitrogen cooled detector shows a lack of understanding relative to filling, detector cooling and the impact of contamination. In addition to reliability, the compressor system can present a much more significant problem. The digface monitor may have to operate at more than 10 degrees off level. This restriction posed by the compressors is not consistent with the flexibility needed at the digface. The cooling decision must be re-evaluated and a more comprehensive view of the overall situation considered. The operation of more electrical equipment at the digface, using air cooling fans, is a major detriment. [See also UCN # 3978.]

*Response by Comment Processing CPT. We recommend performing a study to evaluate changing DFM cooling to liquid nitrogen, followed by modifying the design if appropriate. [This is a consolidated response to comments 3976 (Binder XVIII-A) and 3978 (Binder XVIII-A).]*

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|---|---|---|---|---|
| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | **3977** |
| Document: | **Binder XVIII-A CIS** | Category: Technical | | |
| Location: | EDF-ER-175 MHC and DFM Charact. and Capabilities | | | |
| Comment: | Page 1/ Summary | | | |

61. Comments on the material presented in this EDF would be identical to the comments provided for same EDF contained in Binder VI. [Cross ref. With UCN # 3948.] [32. Drum fill monitoring at the MHC uses 2 HPGe detectors to monitor a drum as it is being filled. The fixed location of the detectors and stationary drum result in large uncertainties relative to a segmented gamma scanner. A single germanium detector monitoring the waste (within the MHC) in small volume increments, prior to placing it in the drum, would provide a better estimate of drum fissile material loading. One could create a more favorable geometry involving a smaller volume compared to a total drum volume. This increased accuracy would eliminate the need for a segmented gamma scanner to provide the better estimate of loading. The assay system would provide the required accuracy for the fissile material content. Two detector systems in the MHC would replace the five or six detectors presently planned. The equipment savings could be directed toward the SHC, and provide monitoring during fill in a way that provides reliable soil characterization at 10 nCi/gram.]

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

EPA Reviewer: Jim McHugh | Significant? Yes | Comment # 3978

Document: **Binder XVIII-A CIS** | Category: Technical

Location: SPC-271 Digface Fissile Monitor

Page 11. Section 5.1

Comment:

62. A stated design restriction is that the DFM shall use electrically cooled germanium detectors in its design. There are a number of advantages to using liquid nitrogen and a number of concerns with electric cooling. A number of the issues were brought out in the trade study. Operating cooling fans, compressors, etc. will introduce a number of complications at the digface that can impact the operation and contamination control. The concern with introducing contamination to the liquid nitrogen system is much overstated. A larger concern exists with the air flow caused by the fans and the buildup of contamination on the HEPA filter near the detectors. Other concerns also exist, and this requirement should be evaluated in more depth. [See also # 3976.]

*Response by Comment Processing CPT. We recommend performing a study to evaluate changing DFM cooling to liquid nitrogen, followed by modifying the design if appropriate. [This is a consolidated response to comments 3976 (Binder XVIII-A) and 3978 (Binder XVIII-A).]*

EPA Reviewer: Jim McHugh | Significant? No | Comment # 3979

Document: **Binder XVIII-A CIS** | Category: Technical

Location: SPC-271 Digface Fissile Monitor

Page 18. Section 5.2.6.2

Comment:

63. Energy calibration prior to every use is not the conventional practice. The calibration is verified with an energy check source; if the calibration is within the required tolerance, the system is not re-calibrated. Also, during this check process, the detector efficiency should be verified. During routine use there are a number of self checks (i.e. shifts or broadening of known gamma lines) to ensure the energy calibration is maintained.

*Response by Jim Rose. We recommend correcting SPC-271, Section 5.2.6.2 to change "Detector calibration will be required ..." to "Verification of detector calibration will be required ...".*

EPA Reviewer: Jim McHugh Significant? Yes Comment # **3980**

Document: **Binder XVIII-A CIS** Category: Technical

Location: SPC-271 Digface Fissile Monitor

Comment: Page 19. Section 5.2.7.3

64. Since the gamma ray spectroscopy system will provide data on gamma emitters from 50 keV and above, one should ensure that the vendor provides an in situ gamma spectroscopy software package (with calibration factors established for various heights above the surface). It should provide for the standard gamma spectroscopy identification and quantitation of nuclides uniformly distributed in a soil volume. Since one cannot predict all the useful information alternatives, this capability is extremely valuable for assessing/measuring soil radionuclide concentrations. It could possibly decrease soil sampling/analysis requirements.

*Response by Comment Processing CPT. The current DFM addresses criticality monitoring requirements. If CR-170 adds digface characterization requirements, solutions such as the reviewer's will be considered for implementing the new requirements. We agree that Am-241 is a significant concern for contamination control; the existing design was developed to mitigate this concern. If CR-170 is implemented, Am-241 data would be available to assist day-to-day retrieval planning. [This is a consolidated response to comments 3930 (Binder II), 3947 (Binder VI), and 3980 (Binder XVIII-A).]*

EPA Reviewer: Jim McHugh Significant? Yes Comment # **3981**

Document: **Binder XVIII-A CIS** Category: Technical

Location: SPC-272 MHC and SHC Monitor Systems

Comment: Page 1. Section 1.1

65. U 235 may not be a significant safety issue for Pit 9, but it is a significant fissile nuclide that all fissile-monitoring systems should measure. A requirement should also exist to measure the U 235 content of waste drums.

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # | 3982 |
| Document: | **Binder XVIII-A CIS** | Category: Technical | | |
| Location: | SPC-272 MHC and SHC Monitor Systems<br>Page 13, Section 5.2.1 | | | |
| Comment: | | | | |

66. Drum fill monitoring at the MHC uses 2 HPGe detectors (total of 4 at two stations) to monitor the drum that is being filled. The fixed location of the detectors and a stationary drum result in large uncertainties relative to a segmented gamma scanner system. A single germanium detector monitoring the waste (within the MHC) in small volume increments, prior to placing it in the drum, would provide a better estimate of drum fissile material loading. One could create a more favorable geometry involving a smaller volume compared to a total drum volume. This increased accuracy would eliminate the need for a segmented gamma scanner (DMS, section 5.2.2) to provide the better estimate of loading. The assay system would provide the required accuracy for the fissile material content. Two detector systems in the MHC would replace the five or six detectors presently planned. The equipment savings could be directed toward the SHC, and provide monitoring during fill in a way that provides reliable soil characterization at 10 nCi/gram.

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

| | | | | |
|---|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # | 3159 |
| Document: | **Binder XX ERS (less ancillary)** | Category: Unspecified | | |
| Location: | SPC-148, Stage II, RES<br>Page 18 of 79, Section 5.3.3 | | | |
| Comment: | | | | |

60. In the context of contact-handled, "special items" should be defined as greater than or equal to 250 mR/hr. The remote excavator system (RES) should be capable of retrieving or handling essentially any item, including special items, within certain weight limitations.

*Response by Daryl Lopez. We recommend incorporating the proposed change into the solution.*

# OU 7-10 Staged Interim Action Project, Stage II, Title II
## Response Report - sorted by Binder/Document

Printed: 10/30/00

IDEQ Reviewer: IDEQ Jean Underwood Significant? No Comment # **3160**

Document: **Binder XX ERS (less ancillary)** Category: Unspecified

Location: SPC-149, Stage II, Title I, ROCS

Comment: Page 13 of 69. Section 5.3.2

61. In the context of contact-handled, "special items" should be defined as greater than or equal to 250 mR/hr. The remote operated crane system (ROCS) should be capable of retrieving or handling essentially any item, including special items, within certain weight limitations.

*Response by Daryl Lopez. We recommend incorporating the proposed change into the solution.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3869**

Document: **Binder XXI Shoring** Category: Technical

Location: EDF-ER-101, Stage II Title I OU 7-10 Shoring and Pile Foundation Design Calculations

Comment: General

184. Page 1 indicates that Preliminary RAE loads have been used for pile design. On Page 6, an assumption has been made that the RAE loads will be uniformly distributed to the support piles. The calculated pile reaction of 45.5 KIP is close to the 25-ton pile working load. Please utilize final RAE support reactions (from Binder XIV-B) to confirm pile capacity.

*Response by Scott Jensen. I do not understand where your 25-ton pile working load comes from. The allowable axial load on the H-piles as indicated in the calcs is about 95 kips and is based on a low compressive strength for the rock. The RAE support axial reactions are all well below the 95 kips.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3867**

Document: **Binder XXI Shoring** Category: Other (clarification/wording)

Location: Shoring

Comment: P-3 S-02456

182. Under "Environmental Requirements", no conditions are listed.

*Response by Scott Jensen. We recommend deleting this heading from the specification*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3868**

Document: **Binder XXI Shoring** Category: Technical

Location: Shoring

Comment: P-3 S-02456

183. General: No driving tolerances are shown in specifications. (cut-off tolerances only are shown on drawings).

*Response by Scott Jensen. Tolerances for the piles' horizontal positions are shown on the shoring drawing by pit dimensions. No driving tolerances for deviation from vertical orientation are provided because pulling and reinstalling a contaminated pile is not practical.*

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**OU 7-10 Staged Interim Action Project, Stage II, Title II**
**Response Report - sorted by Binder/Document**

Printed: 10/30/00

EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3883**
Document: **Binder XXII Utility Building** Category: Technical
Location: Drawings
Sheet A-2
Comment:

198. Masonry control joints appear to be incompatible with wall reinforcing details (bond and lintel beam details). Control joints may not be required in a small building with heavily reinforced masonry, with exterior insulation.

*Response by Dave Stephens. It is recommended that masonry control joints be deleted.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3884**
Document: **Binder XXII Utility Building** Category: Other (clarification/wording)
Location: Drawings
Sheet A-3
Comment:

199. Consider coordinating vertical spacing of bond beams and lintel beams. With so many bond beams, what is the purpose of joint reinforcement?

*Response by Dave Stephens. It is recommended to delete the joint reinforcement from the specification and use only bond beams.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3885**
Document: **Binder XXII Utility Building** Category: Other (clarification/wording)
Location: Drawings
Sheet A-5
Comment:

200. Are all cells grouted, or only the reinforced cells?

*Response by Dave Stephens. Only cells that have reinforcement are to be grouted. It is recommended to remove hatching from cells that are not reinforced.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3886**
Document: **Binder XXII Utility Building** Category: Other (clarification/wording)
Location: Drawings
Sheet A-5
Comment:

201. Coordinate Detail 1 angle size with structural drawings

*Response by Dave Stephens. It is recommended that angle sizes be made to agree between drawings. [See also UCN 3895]*

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**OU 7-10 Staged Interim Action Project, Stage II, Title II**
**Response Report - sorted by Binder/Document**

Printed: 10/30/00

EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3887**
Document: **Binder XXII Utility Building** Category: Technical
Location: Drawings
Sheet A-5
Comment:

202. See previous comment on Sheet A-2 regarding masonry control joints. [198. Masonry control joints appear to be incompatible with wall reinforcing details (bond and lintel beam details). Control joints may not be required in a small building with heavily reinforced masonry, with exterior insulation.]

*Response by Dave Stephens. It is recommended that masonry control joints be deleted.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3888**
Document: **Binder XXII Utility Building** Category: Technical
Location: Drawings
Sheet S-1
Comment:

203. Why does CMU wall dowel spacing not match CMU wall reinforcement spacing?

*Response by Dave Stephens. It is recommended that note on Section B be made to read as it does on Section A. This note states that dowel reinforcing is to be continuous at 32" o.c. into masonry wall which matches wall reinforcement. Grade beam reinforcement is to be 16" o.c. It is also recommended to make all CMU wall reinforcement the same size (#4 bar).*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3889**
Document: **Binder XXII Utility Building** Category: Other (clarification/wording)
Location: Drawings
Sheet S-1
Comment:

204. Is slab-on-grade reinforcement intended to be bottom or mid-depth?

*Response by Dave Stephens. Reinforcement is intended to be per ACI 318 provisions as called out in the specification (3 inches clear from bottom of slab for slabs cast against soil).*

---

EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3890**
Document: **Binder XXII Utility Building** Category: Technical
Location: Drawings
Sheet S-1
Comment:

205. Generator pad vertical reinforcement legs have insufficient lap.

*Response by Dave Stephens. It is recommended that the lap length be corrected on the drawing.*

---

# OU 7-10 Staged Interim Action Project, Stage II, Title II
## Response Report - sorted by Binder/Document

Printed: 10/30/00

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3891**
Document: **Binder XXII Utility Building** Category: Other (clarification/wording)
Location: Drawings
Sheet S-1
Comment:

206. Why do #4 dowels cross slab/wall isolation joints?

*Response by Dave Stephens. It is recommended to remove #4 dowels so that slab/wall isolation joints function as intended.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3895**
Document: **Binder XXII Utility Building** Category: Technical
Location: Drawings
Sheet S-2
Comment:

210. Note 3 conflicts with Section B (length of bearing).

*Response by Dave Stephens. It is recommended that the detail be corrected when the coordination between drawings for the angle sizes is carried out as indicated in the response to comment 3886. [3886 response: It is recommended that angle sizes be made to agree between drawings.]*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3896**
Document: **Binder XXII Utility Building** Category: Technical
Location: Drawings
Sheet S-2
Comment:

211. Under Note 4, the joist designer requires the net uplift load.

*Response by Dave Stephens. It is recommended that Note 4 be changed to give net uplift load.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3892**
Document: **Binder XXII Utility Building** Category: Technical
Location: Drawings
Sheet S-2
Comment:

207. K-Joists are simple span. Therefore, the 8 joists south of the Generator Room have shorter spans than the remaining 4 joists. Why are all joists 16K6?

*Response by Dave Stephens. Simplicity of uniform ordering and uniform size outweighs any minor cost savings by reducing joist depth for so few joists.*

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# OU 7-10 Staged Interim Action Project, Stage II, Title II
## Response Report - sorted by Binder/Document

Printed: 10/30/00

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | 3893 |
| Document: | **Binder XXII Utility Building** | Category: Technical | | |
| Location: | Drawings<br>Sheet S-2 | | | |
| Comment: | | | | |

208. Add note(s) that joists require special bearing seats because slope is greater than 1/4:12.

*Response by Dave Stephens. It is recommended that a note be added to require special bearing seats for joists.*

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | 3894 |
| Document: | **Binder XXII Utility Building** | Category: Technical | | |
| Location: | Drawings<br>Sheet S-2 | | | |
| Comment: | | | | |

209. Side lap puddle welds in 20-gage material are very difficult. Consider mechanical fastenings.

*Response by Dave Stephens. It is recommended that mechanical fastenings be considered as a replacement for the welding.*

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | 3882 |
| Document: | **Binder XXII Utility Building** | Category: Unspecified | | |
| Location: | EDF-1185, INEEL/EXT-99-01194, Stage II, WMF-670 Utility Building Structural Calculations<br>Not indicated | | | |
| Comment: | | | | |

197. Provide calculation for support of joist reaction of 5.02 KIP if joist is aligned with 5/8_ anchor bolt (i.e., entire load carried by one anchor bolt). Consider effects of eccentricity (shear plus tension) on anchor bolt design.

*Response by Dave Stephens. It is recommended that a review of the calculations be made and provide calculation for the combined loading of tension and shear on the anchor bolt.*

| | | | | |
|---|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # | 3870 |
| Document: | **Binder XXII Utility Building** | Category: Other (clarification/wording) | | |
| Location: | SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review<br>P-1 S-01005 | | | |
| Comment: | | | | |

185. Under "Section Includes", clarify what is provided (i.e., furnished and installed) vs. what, if anything, is installed only.

*Response by Dave Stephens. It is recommended to rework the "Section Includes" paragraph to ensure that there is no conflict with the previous paragraph which states that the subcontractor shall furnish and install all material, equipment, and supplies.*

**OU 7-10 Staged Interim Action Project, Stage II, Title II**
**Response Report - sorted by Binder/Document**



EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3876**

Document: **Binder XXII Utility Building** Category: Quality

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-2 S-05100

Comment:

191. Under "Quality Control", it is recommended that steel joists be provided by an SJI member company.

*Response by Dave Stephens. It is recommended that the requirement for an SJI member company to provide the joists be added to the specification under Quality Control.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3878**

Document: **Binder XXII Utility Building** Category: Quality

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-2 S-05310

Comment:

193. Under "Quality Control", it is recommended that roof deck be provided by a SDI member company

*Response by Dave Stephens. It is recommended that the requirement for an SDI member company to provide the deck be added to the specification under Quality Control.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3879**

Document: **Binder XXII Utility Building** Category: Technical

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-2 S-05310

Comment:

194. Under "Materials", no galvanizing requirements (G-60 or G-90) are provided. Also, the material specification should be ASTM A611 GR C, D or E, or ASTM A653 Structural Quality Grade 33 or higher. An under-slab vapor barrier is ordinarily required when barrier coatings such as epoxy are applied to slabs on grade. No vapor barrier is included in this Section.

*Response by Dave Stephens. We recommend that galvanizing requirements (G-90) be added to the specification. A vapor barrier is of no benefit in this geographic area.*

---

EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3877**

Document: **Binder XXII Utility Building** Category: Environmental

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-2 S-05310

Comment:

192. Under "Submittals", why are no shop drawings required? How is compliance going to be evaluated?

*Response by Dave Stephens. It is recommended that shop drawings be added to the Submittals section.*

---

**OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Binder/Document**



EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3881**

Document: **Binder XXII Utility Building** Category: Other (clarification/wording)

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-3 S-05310

Comment:

196. Under "Attachments", coordinate the deck fastening pattern with pattern shown on the Drawings.

*Response by Dave Stephens. We recommend coordinating the deck fastening pattern between specification and drawing.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3880**

Document: **Binder XXII Utility Building** Category: Other (clarification/wording)

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-3 S-05310

Comment:

195. Under "Roof Deck", coordinate deck profile with the information shown on the Drawings.

*Response by Dave Stephens. We recommend that the deck profile information be coordinated between specification and drawings.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3874**

Document: **Binder XXII Utility Building** Category: Technical

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-4 S-03300

Comment:

189. Under "Curing Compound" please be aware that all interior floor surfaces are epoxy-coated. Moist curing should be specified for these surfaces.

*Response by Dave Stephens. It is recommended that the spec 03300 have language added to the curing section which specifies that concrete floors to receive epoxy coating must be moist cured.*

---

EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3875**

Document: **Binder XXII Utility Building** Category: Technical

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-4 S-03300

Comment:

190. An under-slab vapor barrier is ordinarily required when barrier coatings such as epoxy are applied to slabs on grade. No vapor barrier is included in this Section

*Response by Dave Stephens. Vapor barriers are of little value for slabs-on-grade in this part of Idaho.*

---

**OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Binder/Document**



EPA | Reviewer: EPA G. Garbacik | Significant? Yes | Comment # 3871

Document: **Binder XXII Utility Building** | Category: Technical

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review S-02062

Comment:

186. No Demolition Drawings are included. What work is included under this Section?

*Response by Dave Stephens. It is recommended that demolition be removed from the list of work included.*

---

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3872

Document: **Binder XXII Utility Building** | Category: Other (clarification/wording)

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review S-02062

Comment:

187. What local, state, and federal regulations and standards are applicable to this work?

*Response by Dave Stephens. There will be no significant demolition. The removal of rubbish and debris will be standard construction debris. There are no known local, state, or federal regulations that would apply to this kind of removal and disposal.*

---

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3873

Document: **Binder XXII Utility Building** | Category: Other (clarification/wording)

Location: SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building Title II Review S-02062

Comment:

188. Why is a Subcontractor's demolition plan not required as a submittal?

*Response by Dave Stephens. This is all new construction. We recommend that "demolition" be removed from the list of work included in the specification.*

---

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3837

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1** | Category: Technical

Location: Drawings Dwg511145 A-2

Comment:

152. Are there girts or studs in walls of doorways as shown in detail 1? Clearly define what is provided by Subcontractor vs. Metal Building System.

*Response by Dave Stephens. It is recommended that the part of the callout that mentions girts be clarified to reflect connection to the metal building girt near the top of the awning. Typically the lowest girt occurs within 8 ft of the finished floor.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3838

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1**

Location: Drawings

~~Dwg511145S-6~~

Comment:

153. What Live Load was the Mezzanine designed for? This information is not stated on Dwg T-2 (location of the General Notes) or Dwg. S-6 (location of Mezzanine plan). Is deck able to withstand clear span (shored or unshored) in single span (wet concrete) condition? Calculations should be provided. Provide for large pipe opening (additional reinforcement - if required).

*Response by Dave Stephens. It is recommended that a note be added that specifies the size and type of composite concrete deck, shoring conditions, and lists the minimum capacity.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3841

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1**

Location: Drawings

~~Dwg511151 S-3~~

Comment:

156. Section B - Will control joint have sealant in the joint?

*Response by Dave Stephens. Yes. The concrete specification specifies this.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3839

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1**

Location: Drawings

~~Dwg511154 S-6~~

Comment:

154. L8x8x1/2 Slab closure angle will protrude 1" above the top of slab - Is this the intent? Sections P, R and T show the angle top flush with the top of the slab - please clarify.

*Response by Dave Stephens. Angle will protrude 1/2" above top of slab. It is recommended that the drawing be revised to reflect this.*

---

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3840

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1**

Location: Drawings

~~Dwg511154 S-6~~

Comment:

155. Section U - What size is bearing plate? Provide bond beam detail.

*Response by Dave Stephens. The size of the bearing plate will be determined as stated in note 2. It is recommended that an indication as to where bond beams are to be located be added to the drawing. Details are included in the specification.*

---

EPA | Reviewer: EPA Kashdan_Flannery | Significant? No | Comment # 3917

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1** | Category: Other (clarification/wording)

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For ~~Construction~~ General

Comment:

103. Please show the need for a structure for securing objects within the Storage Facility, as noted in Binder 5, Physical Security Plan, Pages 7 and 8, Section 6.5.7. None of the drawings in Binder 23 show such an area.

*Response by Doug Morrell. We recommend that a physical security confinement area not be installed as part of the construction process. However, we recommend that a drawing be prepared that identifies the proposed location in the event that the need for a physical security confinement arises during operations. The proposed location would be in the South-East corner of the storage facility. Verbiage should be included in the Summary of Work section of the specification describing the need for allocation of space for the potential "future" confinement installation.*

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EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3827

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1** | Category: Technical

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For ~~Construction~~ S-03300-2 of 15 Lines 1 through 22

Comment:

142. Additional concrete references should be noted to provide adequate quality assurance: ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete -- ACI 308 Standard Practice for Curing Concrete -- ASTM C94 Specification for Ready Mixed Concrete -- ASTM C173 Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method -- ASTM C231 Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method -- ASTM D1751 Specifications for Preformed Expansion Joint Filler for Concrete Paving and Structural -- Construction -- ASTM D1752 Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete -- Paving and Structural Construction

*Response by Dave Stephens. At least two of these references are already invoked. It is recommended that others be added as applicable.*

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EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3828

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1** | Category: Technical

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For ~~Construction~~ S-03300-4 of 15 line ~21

Comment:

143. Add to spec - Store admixtures in a manner to prevent contamination, evaporation, moisture penetration or damage. Do not use products, which have been stored longer than 6 months.

*Response by Dave Stephens. It is recommended that this be added to a general "Delivery, Storage, and Handling" section added after "Quality Control" section.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3829**

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1** Category: Technical

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

S-04220-1of 8 line 24

Comment:

144. Specification should list ACI 530.1 Specification for Masonry Structures as masonry code.

*Response by Dave Stephens. It is recommended that ACI 530.1 be listed as stated in this comment.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3830**

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1** Category: Technical

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

S-04220-2 of 8 line 18

Comment:

145. ACI 531 does not exist. Should it be ACI530.1?

*Response by Dave Stephens. It is recommended that this typo be corrected.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3831**

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1** Category: Technical

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

S-05060-2 of 8 line 42

Comment:

146. Under Quality Control, Codes and Standards Regulatory Requirements, should the AWS D1.1 Structural Welding Code and INEEL Welding Manual be cited?

*Response by Dave Stephens. It is recommended that the reference currently under the Quality Control Section be removed. This reference and the two cited in the comment are already invoked on page 05060-1.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3832**

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1** Category: Technical

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

S-05060-5 of 8 line 7

Comment:

147. Under PART 2 PRODUCTS, what type of welding electrode is to be used? Low hydrogen electrodes for field welding?

*Response by Dave Stephens. It is recommended that types of acceptable welding electrodes be added.*

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**OU 7-10 Staged Interim Action Project, Stage II, Title II**
**Response Report - sorted by Binder/Document**



EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3833

Document: **Binder XXIII-A 100% Final Storage**
Location: **Bldg Part 1**

Category: Technical

SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

S-05400-2 of 3 lines 7 - 10

Comment:

148. The only metal studs that are noted on the drawings are 6" metal studs at the Electrical/Fire Riser Rooms. Please correct the callout in the drawings or specs.

*Response by Dave Stephens. It is recommended that the specification be corrected to reflect 6 inch studs.*

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EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3836

Document: **Binder XXIII-A 100% Final Storage**
Location: **Bldg Part 1**

Category: Technical

SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

S-13120- General

Comment:

151. Piping loads should be transmitted to metal building manufacturer. Please clearly define what is provided under this Section. Under "Section Includes", several items are listed only as "installation of ..." Please clarify the items that are to be furnished and furnished and installed. Are these items listed in Section 13120? It is not clear from the text who will supply these items.

*Response by Dave Stephens. Piping loads are covered under collateral loading specification on page 13120-5. It is recommended that the word "installation of" be removed from the "Section Includes" list. This should be sufficient clarification since the Summary first paragraph states that the subcontractor shall both furnish and install a complete metal building system as specified by the specs and drawings.*

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EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3835

Document: **Binder XXIII-A 100% Final Storage**
Location: **Bldg Part 1**

Category: Technical

SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

S-13120-5 of 10 line 31

Comment:

150. Lateral Deflection should be changed to lateral deflection of building frames or drift.

*Response by Dave Stephens. It is recommended that "Lateral Deflection" be changed to "Lateral deflection of building frames (Story drift)".*

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**OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Binder/Document**



EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3834**

Document: **Binder XXIII-A 100% Final Storage Bldg Part 1** Category: Technical

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

S-13120-5 of 10 lines 26 and 27

Comment:

149. The 18,000 lb. Per column loading does not concur with Note 4 on Sheet S-6. Consider structurally isolating the rigid mezzanine from the flexible metal building to avoid impacting the response to the metal building under lateral loading.

*Response by Dave Stephens. It is recommend that the note on S-6 and the statement in the specification be made to agree. Impact to metal building from rigid mezzanine has been previously considered and shown to be negligible.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3842**

Document: **Binder XXIII-B 100% Final Storage Facility Part 1** Category: Technical

Location: EDF-1139, OU 7-10 Stage II WMF-669 Storage Facility Structural Design

1997 UB S Seismic Equations Sprdsht

Comment:

157. Seismic dead load is not calculated. Also other possible contributors to the seismic dead load need to be checked. See UBC-97.

*Response by Dave Stephens. Recommend showing in greater detail how dead load is calculated for seismic calculations. Also, it is recommended to review other possible contributors to seismic dead load.*

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EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3843**

Document: **Binder XXIII-B 100% Final Storage Facility Part 1** Category: Technical

Location: EDF-1139, OU 7-10 Stage II WMF-669 Storage Facility Structural Design

Summary of 'On Grade Floor Slab" Design Calcs.

Comment:

158. What is load on the slab that the allowable is compared to? A calculation should be preformed to show the anticipated loadings on the floor so that the allowable values can be verified as acceptable.

*Response by Dave Stephens. It is recommended to state what the maximum expected design load is so this may be compared to allowable.*

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**OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Binder/Document**



| | | | |
|---|---|---|---|
| EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3844 |
| Document: | **Binder XXIII-B 100% Final Storage Facility Part 1** | Category: Technical | |
| Location: | EDF-1139, OU 7-10 Stage II WMF-669 Storage Facility Structural Design Summary of "On Grade Floor Slab" Design Calcs. | | |
| Comment: | | | |

159. "Slab on Grade Reinforcement Calculations" According to ACI 318 A3.2 the allowable tensile stress reinforcement is 24,000 psi not 30,000 psi.

*Response by Dave Stephens. It is recommended that the allowable stress be changed to 24 ksi.*

| | | | |
|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? Yes | Comment # 3165 |
| Document: | **Binder XXIV Cost and Schedule** | Category: Unspecified | |
| Location: | 90% Working Schedule Through Stage II | | |
| Comment: | General | | |

66a. The timeframes presented in the Stage II schedule do not support the milestones dates established in the October 1997 OU 7-10 Remedial Design/Remedial Action Scope of Work and Remedial Design Work Plan or the OU 7-10 Stage I Work Plan (June 1998). Specifically, submittal of the draft Stage II Report to the Agencies in the fourth quarter of 2007 does not meet the primary milestone of April 2003.

*Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting, DOE has submitted a request for extension (see EM-ER-188-00). This issue is under review by the three Agencies. [This is a consolidated response to comments 3113 (Binder I-A), 3165 (Binder XXIV), 3986 (Binder I-A), 3998 (Binder I-A), and 4040 (Binder XXIV).]*

| | | | |
|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? Yes | Comment # 3166 |
| Document: | **Binder XXIV Cost and Schedule** | Category: Unspecified | |
| Location: | 90% Working Schedule Through Stage II | | |
| Comment: | General | | |

66b. The USQ for sheet piling is shown to be completed in the fourth quarter of 2001. This USQ should have been completed as a component of the Stage II 90% RD/RAWP.

*Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: An underground fire and/or explosion initiated by shoring pile installation is addressed in Appendix A to USQ Safety Evaluation No. SE-RWMC-99-039. (A copy was provided to the Agencies on 10/9/00.) We recommend adding this USQ to the RD/RAWP package. We also recommend providing additional detail on modeling to be performed, plans for cold testing, and measures planned during installation. Further, we recommend modifying the piling specification to indicate that the Project will provide direction (e.g. driving rates) for piling installation. We do not anticipate the need for design changes, but realize that procedures might have to be updated. [This is a consolidated response to comments 3130 (Binder V), 3163 (Binder XXIV), 3166 (Binder XXIV), 3211 (Binder I-A), and 3990 (Binder I-A).]*

IDEQ | Reviewer: IDEQ Jean Underwood | Significant? Yes | Comment # 3167

Document: **Binder XXIV Cost and Schedule** | Category: Unspecified

Location: 90% Working Schedule Through Stage II

Comment: General

66c. The FSAR needs to be identified as a secondary deliverable to the Agencies consistent with the document hierarchy presented in Binder I-A.

*Response by Dave Wilkins. We recommend adding FSAR as a secondary deliverable as proposed by the reviewer.*

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EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # 4041

Document: **Binder XXIV Cost and Schedule** | Category: Environmental

Location: 90% Working Schedule Through Stage II

Comment: Working Sched.

269. It appears that the durations listed are working days (e.g., Activity 162), but FFA/CO durations are calendar days.

*Response by Dave Wilkins. We recommend making the proposed correction.*

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EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # 4044

Document: **Binder XXIV Cost and Schedule** | Category: Environmental

Location: 90% Working Schedule Through Stage II

Comment: Working Sched.

272. Many of the activities (e.g., the GFE Equipment) are filtered schedules without a listing of assumptions to support the durations listed.

*Response by Comment Processing CPT. Per Tri-Party agreement at the 10/3/00 Agency Face-to-Face meeting, within two weeks EPA and IDEQ will provide a list of activities from the schedule in the RD/RAWP package for which they request schedule planning assumptions. DOE will then provide the assumptions to EPA and IDEQ by a date to be agreed upon based on the number of activities involved.*

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EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # 4042

Document: **Binder XXIV Cost and Schedule** | Category: Environmental

Location: 90% Working Schedule Through Stage II

Comment: Working Sched.

270. No successors or precedents are provided identifying how activities are linked.

*Response by Dave Wilkins. We recommend providing this information. Rationale: Schedule is unclear to the reader without this information, however, successors and precedents are always evolving and being changed to optimize resource utilization and influences on the critical path.*

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|---|---|---|---|---|
| EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # | 4043 |
| Document: | **Binder XXIV Cost and Schedule** | Category: Environmental | | |
| Location: | 90% Working Schedule Through Stage II | | | |
| Comment: | Working Sched. | | | |

271. The schedule does not show linkage to the WBS to allow evaluation of cost with schedule

*Response by Dave Wilkins. We recommend providing this information. Rationale: Relationship of the cost elements is not clear to the reader. Remedial design provides a cost estimate and a schedule. It is desirable but not necessary to have a one for one correlation between WBS and the cost estimate.*

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|---|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # | 3164 |
| Document: | **Binder XXIV Cost and Schedule** | Category: Unspecified | | |
| Location: | Baselined WBS | | | |
| Comment: | General | | | |

65. The work breakdown structure (WBS) was prepared in November 1997 and some baseline assumptions have changed/evolved over time. IDEQ requests that the WBS be updated to reflect the current baseline assumptions (e.g., Stage III not necessarily a scaled up version of Stage II). Subsequently, the schedule should be updated in a corresponding manner as well with schedule assumptions and precedents clearly documented.

*Response by Dave Wilkins. We recommend updating the WBS as proposed; the WBS and schedule should be updated as the project evolves.*

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|---|---|---|---|---|
| EPA | Reviewer: EPA Wayne Pierre | Significant? Yes | Comment # | 4040 |
| Document: | **Binder XXIV Cost and Schedule** | Category: Environmental | | |
| Location: | Cost & Schedule | | | |
| Comment: | General | | | |

268.** The working schedule does not support the enforceable deadline dates.

*Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting, DOE has submitted a request for extension (see EM-ER-188-00). This issue is under review by the three Agencies. [This is a consolidated response to comments 3113 (Binder I-A), 3165 (Binder XXIV), 3986 (Binder I-A), 3998 (Binder I-A), and 4040 (Binder XXIV).]*

| | | | | |
|---|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # | 3161 |
| Document: | **Binder XXIV Cost and Schedule** | Category: Unspecified | | |
| Location: | Cost Estimate Support Data Recapitulation | | | |
| Comment: | Page 3 of 12, Item 4 | | | |

62. Please elaborate on the basis for the assumption that "any delay in completion of the Stage II design will add an average additional $5,000,000 per year of escalation". Does this same assumption apply should procurement and construction be put on hold after completion of the design?

*Response by Dave Wilkins. We recommend revising Item 4 to include the basis for the escalation calculation and what phases of the project that are impacted.*

**OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Binder/Document**



| | | | |
|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # **3162** |
| Document: | **Binder XXIV Cost and Schedule** | Category: Unspecified | |
| Location: | Cost Estimate Support Data Recapitulation<br>Page 5 of 12. Item 21 | | |
| Comment: | | | |

63. An estimate should be provided for relocation of the Stage II facilities and equipment since relocation may occur as part of Stage II.

*Response by Dave Wilkins: Assuming that "relocation" implies moving the Stage II retrieval facility to a new location following Stage II, this scope is not part of Stage II and would not be included in the RD/RA Work Plan. See also the response to comment 3135.*

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|---|---|---|---|
| IDEQ | Reviewer: IDEQ Jean Underwood | Significant? No | Comment # **3163** |
| Document: | **Binder XXIV Cost and Schedule** | Category: Unspecified | |
| Location: | Cost Estimate Support Data Recapitulation<br>Page 7 of 12. Item 3 | | |
| Comment: | | | |

64. IDEQ requests more detail on the shoring temperature bench scale piling test and cold test to be performed prior to installation of the sheet piling.

*Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: An underground fire and/or explosion initiated by shoring pile installation is addressed in Appendix A to USQ Safety Evaluation No. SE-RWMC-99-039. (A copy was provided to the Agencies on 10/9/00.) We recommend adding this USQ to the RD/RAWP package. We also recommend providing additional detail on modeling to be performed, plans for cold testing, and measures planned during installation. Further, we recommend modifying the piling specification to indicate that the Project will provide direction (e.g. driving rates) for piling installation. We do not anticipate the need for design changes, but realize that procedures might have to be updated. [This is a consolidated response to comments 3130 (Binder V), 3163 (Binder XXIV), 3166 (Binder XXIV), 3211 (Binder I-A), and 3990 (Binder I-A).]*

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|---|---|---|---|
| EPA | Reviewer: Jim McHugh | Significant? Yes | Comment # **3984** |
| Document: | **Binder XXIV Cost and Schedule** | Category: Project Objectives | |
| Location: | Stage II Title II 90% Cost Estimate<br>Page 76/Samples and Analysis | | |
| Comment: | | | |

68. The cost estimate for samples and analysis, and the total sampling cost ($7, 500,000) is very high. It is very important to choose those strategies that meet objectives and minimize costs. A number of strategies chosen in the FSP are not consistent with minimizing costs. A breakdown of costs is necessary to further evaluate the estimate.

*Response by Comment Processing CPT. As agreed to in the 10/3/00 Agency Face-to-Face Meeting, we recommend that reevaluation of the costs and revision of the Field Sampling Plan be contingent upon implementation of CR-170.*

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**OU 7-10 Staged Interim Action Project, Stage II, Title II**
**Response Report - sorted by Binder/Document**



EPA Reviewer: EPA Wayne Pierre Significant? Yes Comment # **4045**

Document: **Binder XXVI Project Management Docs** Category: Environmental

Location: PLN-417, Risk Management Plan
Appendix A

Comment:

273. Only 3 of 25 identified risks have been closed. No implementation schedule is provided to show how these items will be assessed and abated.

*Response by Carol Reid. We recommend that a Cross Product Team evaluate the open risks, determine their current status, document the results of the evaluation, and revise the Risk Management Plan as needed. Any remaining open risks would be added to the OU 7-10 Staged Interim Action Project Action Item Database to be managed by the PM IPT.*

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EPA Reviewer: Jim McHugh Significant? Yes Comment # **3983**

Document: **Binder XXVI Project Management Docs** Category: Technical

Location: PLN-417, Risk Management Plan
Page A. Appendix A

Comment:

67. Item No. 7 identifies that not meeting the 10 nCi/gram segregation criteria is a major risk to the project. This is an open item listed as of September 1998. This item is still open and the 90% design does not provide satisfactory alternatives to overcome this deficiency.

*Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]*

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IDEQ Reviewer: IDEQ Jean Underwood Significant? Yes Comment # **3168**

Document: **Binder XXVI Project Management Docs** Category: Unspecified

Location: PLN-666, Systems Engineering Management Plan
Appendix A

Comment:

67. Reference and summary of the April 2000 Agency meeting does not appear appropriate for inclusion in this document. Please delete.

*Response by Vivienne Aho. We recommend incorporating the proposed change into the document. The cited information does not directly support the SEMP contents as presented.*

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